

MACH LIST FOR-2311 MOD- SER-7324544 PLT-73 REQSTR DCC 18FEB70
CTRY-866 CUST-0000000- SER BR-000 SYS#- -000-FLO⁶⁶45 TYP-2025
SHIPPED- SHP SEQ-A0101 FCT SEQ-B0032 W/D SUF- 3 MACH STA-FACTRY
SEQ# EC# STATUS FLD B/M FCSI # TIME ECA# DATE
A0101 910385 PRES LVL
80032 FCT 411407 FACT LVL
Y0005 OPT 411409 INQUIRY#
FEAT BM QTY FEATURE NAME STATUS DATE ACC SHP-LVL-FCT
SEQ# EC# STATUS FLD B/M FCSI # TIME DATE
2133900 001 IDENTIFICATION BUTTON 0 INT FEB70 D0002 E0000
D0002 411123 PRES LVL
2180861 001 LANGUAGE GROUP ENGLISH INT FEB70 D0002 E0001
D0002 408077 PRES LVL
E0001 FCT 408081T FACT LVL
2180900 001 SHIPPING GROUP INT FEB70 D0004 E0000
D0004 411239 PRES LVL
2181034 001 COLOR GROUP BLUE INT FEB70 9043 D0001 E0000
D0001 411114 PRES LVL
2244008 001 COMPLETION 50 CYCLE MD 1 INT FEB70 D0002 E0000
D0002 411321 PRES LVL

PAGE NO. SH	TITLE	PART NO	EC NO.	FEATURE B/M OR B/MS
** LOGIC TYPE SLT BOARDS 6				
01B-A1	CUSTOMIZED BOARD ASSEMBLY	5811144	411227A	

FD010	INTERFACE	2180631	411387	
FD011	2311 SIMPLIFIED LOGIC	2244138	411359	
FD012	2311 SIMPLIFIED LOGIC	2244139	411359	
FD013	2311 SIMPLIFIED LOGIC	2244140	411359	
FD014	2311 SIMPLIFIED LOGIC	2244141	411359	
FD015 1	SLD CHART	2180831	411359	
FD015 2	SOCKET LISTING	2180831	411359	
FD016	DATA FLOW + CONTROL	2180832	411143	
FD020	LINE RECEIVERS	2180633	411249	
FD021	LINE RECEIVERS	2180634	411334	
FD025	LINE DRIVERS	2180635	411334	
FD026	LINE DRIVERS	2180636	411334	
FD030	CYLINDER ADDR + DIFF RESET	2180637	411249	
FD040	DIFFERENCE COUNTER WITH DECODES	2180638	411249	
FD050	SOLEINOID DRIVERS	2180639	411334	
FD053	ACCESS TIMING	2180640	411359	
FD056	TRANSDUCER - SPEED DETECTOR	2180641	411334	
FD057	I/O SECTOR GENERATOR	2181317	411334	
FD060	HEAD SELECT REGISTER	2180642	411249	
FD065	HEAD SELECT 0-9 + SAFETY	2180643	411334	
FD070	WRITE AMPLIFIER	2180644	411341	
FD075	WRITE DRIVER + MATRIX	2180645	411249	
FD080	READ PRE-AMP + MATRIX	2180646	411249	
FD085	READ AMPLIFIER	2180647	411359	
FD090	SAFETY CIRCUITS	2180648	411359	
FD097	REVENUE METER	2180655	411334	
FD098	R + S METER OPTIONAL FEATURE	2180833	411334	
FD099	CE INDICATOR DRIVER	2180825	411249	
FD100	RELAY CIRCUITS	2180649	411359	
FD105	SOLENOIDS	2180650	411249	
FD110	AC POWER DISTRIBUTION	2180651	411359	
FD111 1	AC POWER DISTRIBUTION	2180834	411359	
FD111 2	AC POWER DISTRIBUTION	2180834	411359	
FD115	DC+ SIGNAL DISTRIBUTION	2180652	411249	
FD117	COMPONENT LOCATIONS	2180745	411359	
FD120	SERVICE VOLTS BOARD A1	2180654	411359	

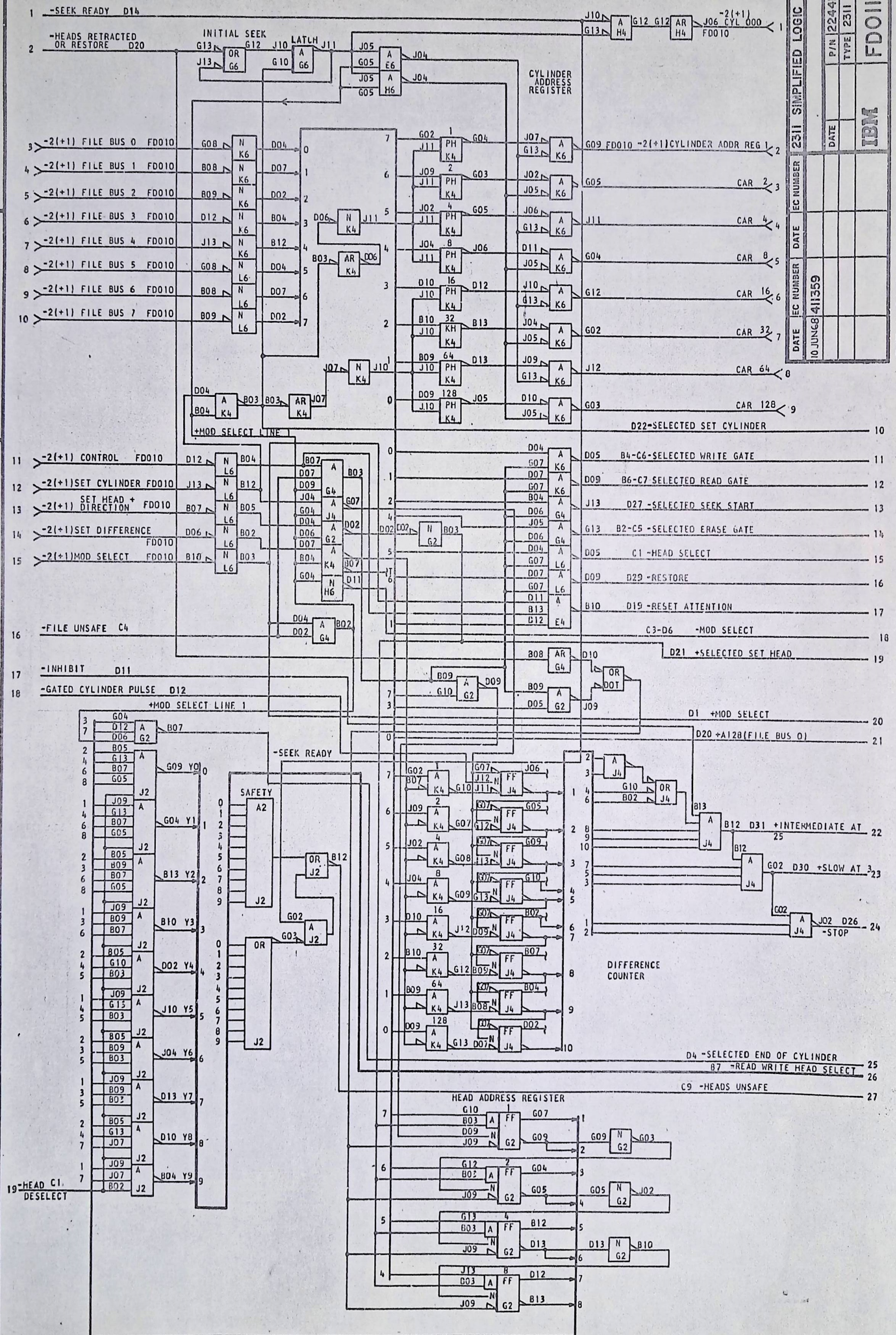
2		3		4		5		6		7			
FCU TO FILE							FILE TO FCU						
LINE NAME	2841 PAGE	SYS/360-20 MOD 01-04 50HZ 60HZ	SYS/360-20 MOD-05 50HZ 60HZ	SYS/360-25 PAGE	2311 PAGE	2311 CONNECTORS	LINE NAME	2841 PAGE	SYS/360-20 MOD 01-04 50HZ 60HZ	SYS/360-20 MOD-05 50HZ 60HZ	SYS/360-25 PAGE	2311 PAGE	2311 CONNECTORS
CLOCK OUT	FA011	WF093	WF093	WF094	FD020	SIG-24	CYLINDER ADDR REG 1	FA011		WF094	WF093	FD026	SIG-40
CONTROLLED GND (FROM FCU)	FA011	YA271 YA571	YB045 YB145	YA072	FD115	SIG-76	CYLINDER ADDR REG 2	FA011		WF094	WF093	FD026	SIG-42
CONTROL	FA011	WF093	WF093	WF094	FD021	SIG-21	CYLINDER ADDR REG 4	FA011		WF094	WF093	FD026	SIG-43
CPU HALT	FA011	WF093	WF093	WF094	FD020	SIG-22	CYLINDER ADDR REG 8	FA011		WF094	WF093	FD026	SIG-45
DC GROUND	FA011	YA422 YA722	YB067 YB0167	YA072	FD115	DC-3,4,10 & 11	CYLINDER ADDR REG 16	FA011		WF094	WF093	FD026	SIG-46
							CYLINDER ADDR REG 32	FA011		WF094	WF093	FD026	SIG-48
							CYLINDER ADDR REG 64	FA011		WF094	WF093	FD026	SIG-49
							CYLINDER ADDR REG 128	FA011		WF094	WF093	FD026	SIG-51
FILE BUS 0	FA011	WF093	WF093	WF094	FD020	SIG-1	FILE UNSAFE	FA011	WF094	WF094	WF093	FD025	SIG-57
FILE BUS 1	FA011	WF093	WF093	WF094	FD020	SIG-3	FRAME GROUND	FA011	YA412, YA712	YB041 YB141	YA072	FD110	AC-G
FILE BUS 2	FA011	WF093	WF093	WF094	FD020	SIG-4	GATED ATTENTION	FA011	WF094	WF094	YA072	FD025	DC-21
FILE BUS 3	FA011	WF093	WF093	WF094	FD020	SIG-7	HEADS EXTENDED	FA011	YA271 YA571	YB045 YB145	YA072	FD115	SIG-65
FILE BUS 4	FA011	WF093	WF093	WF094	FD020	SIG-8	NEUTRAL (50 CYCLE ONLY)	FA011	YA412 YA712	YB045 YB145	YA072	FD110	AC-D
FILE BUS 5	FA011	WF093	WF093	WF094	FD021	SIG-11						FD085	DC-12
FILE BUS 6	FA011	WF093	WF093	WF094	FD021	SIG-12	READ DATA COAX	FA011	WF094	WF094	YA072		
FILE BUS 7	FA011	WF093	WF093	WF094	FD021	SIG-14							
MOD SELECT	FA011	WF093	WF093	YA072	FD021	DC-23	SEL END OF CYLINDER	FA011	WF094	WF094	WF093	FD025	SIG-60
SET CYLINDER	FA011	WF093	WF093	WF094	FD021	SIG-17	SEL SEEK INCOMPLETE	FA011	WF094	WF094	WF093	FD025	SIG-58
SET DIFFERENCE	FA011	WF093	WF093	WF094	FD021	SIG-15	SEL WRITE CURRENT SENSE	FA011	WF094	WF094	WF093	FD025	SIG-64
SET HEAD & DIRECTION	FA011	WF093	WF093	WF094	FD021	SIG-18	SELECTED FILE READY	FA011	WF094	WF094	WF093	FD025	SIG-52
WRITE DATA COAX	FA011	WF093	WF093	YA072	FD070	DC-5	SELECTED INDEX	FA011	WF094	WF094	WF093	FD025	SIG-55
							SELECTED MODULE	FA011	YA422 YA722	WF094	YA072	FD025	DC-22
+3 VDC	FA011	YA422 YA722	YB065 YB165	YA072	FD115	DC-13 & 14	SELECTED ON LINE	FA011	WF094	WF094	WF093	FD025	SIG-54
-3 VDC	FA011	YA422 YA722	YB065 YB165	YA072	FD115	DC-19 & 20	SELECTED SECTOR	FA011	WF094	WF094	WF093	FD057	SIG-52
+6 VDC	FA011	YA422 YA722	YB065 YB165	YA072	FD115	DC-1 & 2							
+36V SEQUENCE PICK (IN)	FA011	WF094	WF094	WF093	FD115	SIG-77 (IN CONN)	+3 VDC TO TERMINATOR PLUG					FD115	SIG-79 (OUT CONN)
-36 VDC	FA011	WF095	WF094	YA072	FD115	DC-15	+36V SEQUENCE PICK (OUT)	FA011	WF094	WF094	WF093	FD115	SIG-77 (OUT CONN)
208 VAC -3 PHASE	FA011	YA412 YA712	YB041 YB141	YA072	FD110	AC-A, B & C	+36V TO FCU READY POINT	FA011	WF094	WF094	WF093	FD115	SIG-78 (IN CONN)
110/208 VAC CONVENIENCE	FA011	YA412 YA712	YB041 YB141	YA072	FD110	AC-E & F							
SHIELD GROUND		WF093	FRAME GROUND	YA072		SIG-80,82	100 CYLINDER FILE		WF094	WF094		FD115	DC-16
SHIELD GROUND	FA011	YA422 YA722	FRAME GROUND	YA072		DC-25	CYLINDER 000		WF094	WF094		FD057	DC-17

- NOTES:
1. CABLE ROUTING THROUGH FILE IS SHOWN ON FD115
 2. ALL SIGNAL LINES ARE TWISTED PAIRS THE GROUND WIRE IS TERMINATED ON THE GROUND BUS ON THE CABLE CARD IN THE ELECTRONIC GATE
 3. SYSTEM/360-20 CONNECTS TO 2311 MOD 11 AND 12, ALL OTHERS CONNECT TO MOD 1.

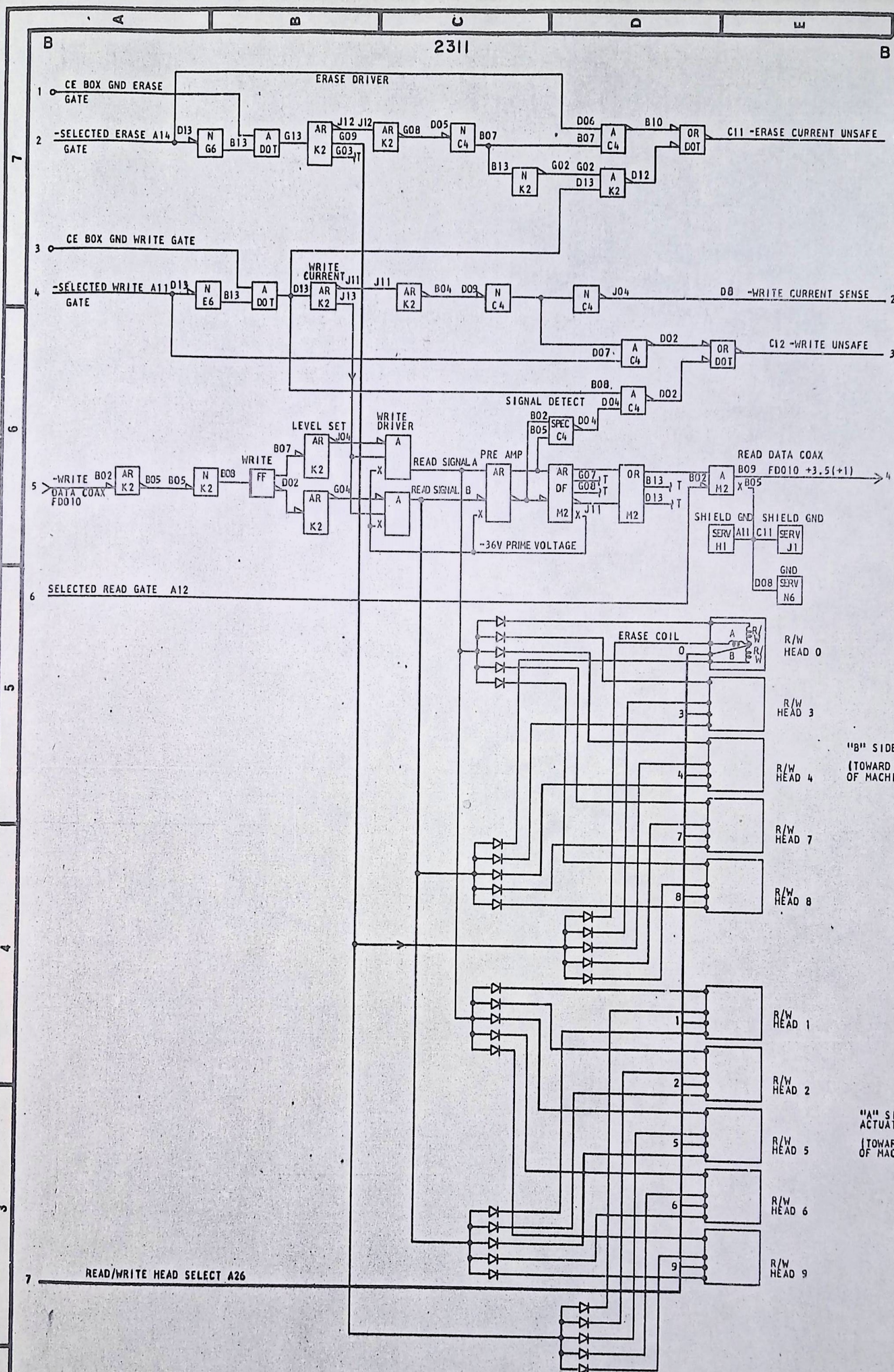
RED

DATE	EC NUMBER	DATE	EC NUMBER	INTERFACE		
AUG 64	411042	JUL 66	411227			
JAN 65	411105	APR 67	411249	DATE	JUL 66	P/N 2180691
APR 65	411127	06JUN68	411359		TYPE	
JUN 65	411141	05SEP68	411387	IBM		
SEP 65	411152			FD010		

2311



23 HOLE PUNCH- THIS EDGE

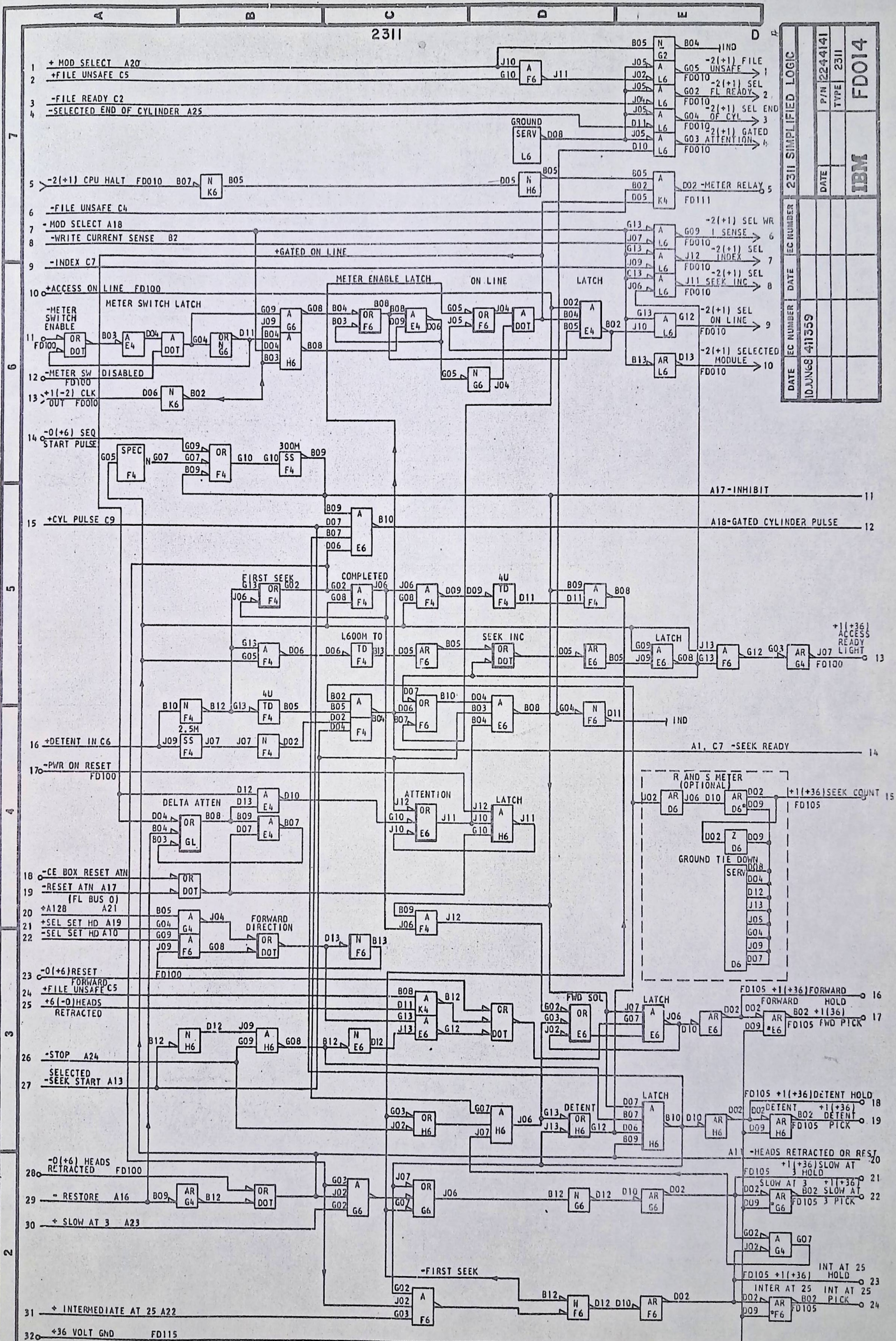


DATE	EC NUMBER	DATE	EC NUMBER	2311 SIMPLIFIED	LOGIC
10 JUN 68	411359				
				DATE	P/N 2244139
					TYPE 2311
				IBM	FD012

HOW TO USE SIMPLIFIED LOGIC

1. THE SIMPLIFIED LOGIC DIAGRAM CONSISTS OF FOUR SHEETS LABELED A, B, C AND D.
2. THE INPUT LINES AND THE OUTPUT LINES ARE NUMBERED CONSECUTIVELY FROM TOP TO BOTTOM.
3. BOTH THE INPUT AND OUTPUT LINES ARE CROSS-REFERENCED TO CONNECTING PAGES THROUGH THE USE OF PAGE AND LINE IDENTIFICATION. FOR EXAMPLE, OUTPUT LINE 1, "ERASE CURRENT UNSAFE" ON THIS PAGE (PAGE B) CONNECTS TO PAGE C LINE 11 (C11). ON PAGE C NOTE THAT THE LINE IS DESIGNATED B1, MEANING THAT THE LINE ORIGINATES ON PAGE B, LINE 1.

23 HOLE PUNCH - THIS EDGE



SOLID LOGIC DESIGN AUTOMATION--SOCKET LISTING

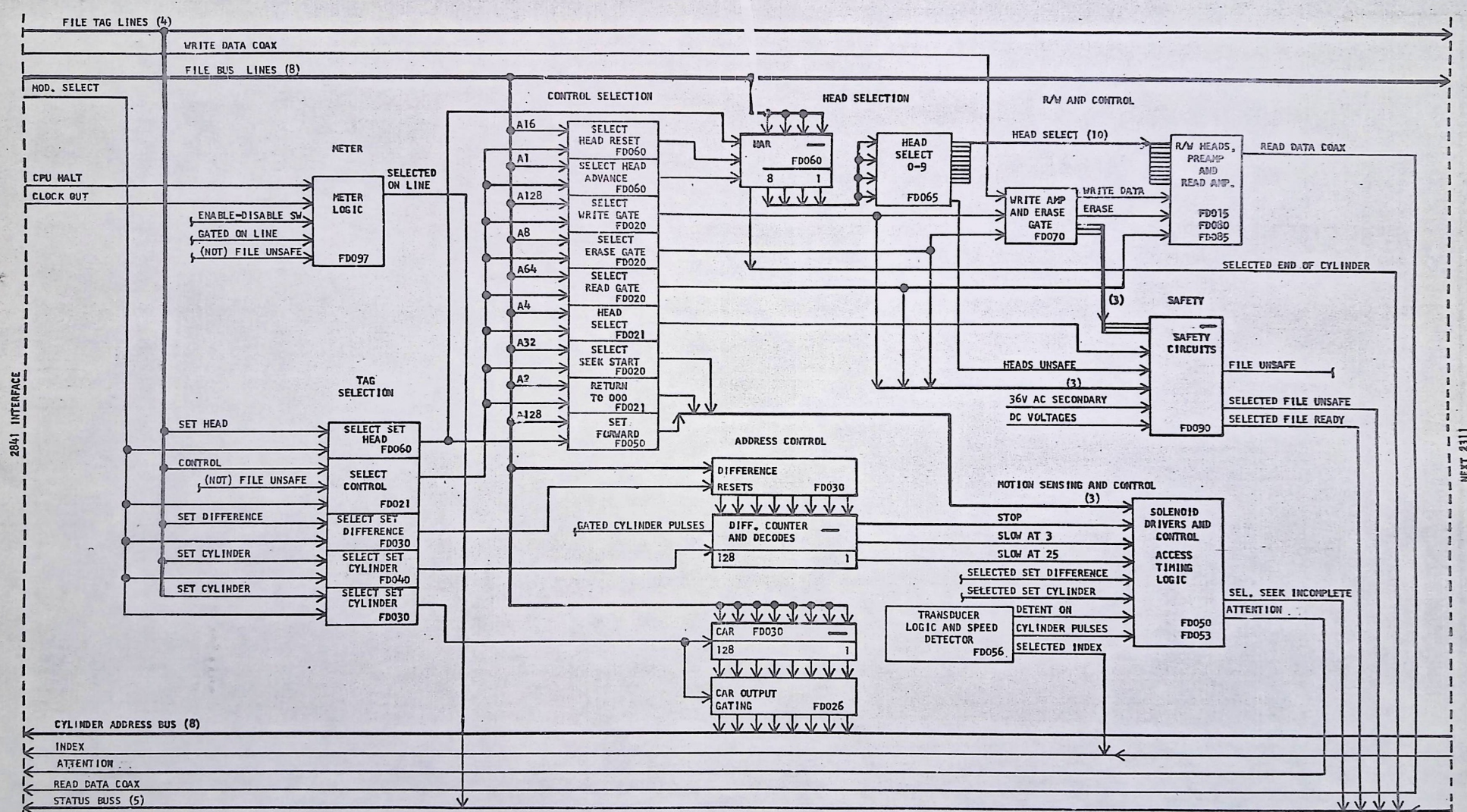
PAGE 01

A2	CONNECTOR B02 FD040BP4 B04 FD030AR4 B07 FD030AR4 B09 FD050AJ4 B10 FD030AK4 B13 FD030AJ4 D02 FD090AK4 D04 FD090AL4 D05 FD030AL4 D06 FD040BM4 D09 FD030AR4 D10 FD030AS4 D11 FD025CE4 D12 FD040BK4 D13 FD030AP4	C1 CONNECTOR E11 FD070AN4	19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40	IN2 D05 FD070AC2 D06 FD065AE2 D07 FD070AH2 D09 FD070AH7 D10 FD070AJ3 D11 FD065AJ2 D12 FD055AH2 D13 FD055AB1
A3	CONNECTOR B02 FD060AN4 B04 FD040AT4 B07 FD060BC4 B09 FD040AL4 B10 FD026BF4 B12 FD053BF4 D02 FD040AR4 D04 FD060BR4 D05 FD040AN4 D07 FD060AL4 D09 FD040BH4 D11 FD050BD4	G2 DOUBLE CARD 5804273 4273 FD060 A1 A2 A3 A4 A5 A7 AA AB AD AE AF AG AH AJ AK AL AM AN AP AQ AS AT AU AV FD025 BA	K2 DOUBLE CARD 5806038 6838 FD070 A1 A2 A3 A4 B1 B2 B3 B4 C1 C2 UNUSED PORTIONS D	N3 CONNECTOR B04 FD056AY7 B07 FD056AM2 B09 FD056AM4 B12 FD056AK3 B13 FD056AK4 D02 FD056AK4 D04 FD056AY5 D05 FD056AY4 D06 FD056AK4 D07 FD056AM5 D08 FD056AY2 D09 FD056AK6 D10 FD056AX7 D12 FD056AR4 D13 FD056AK4
C4	DOUBLE CARD 5808363 8363 FD090 A1 A2 AB AC AD AE AF AJ AK AL AM AN AP AQ AS AT AU AV AX AY AZ	G5 DOUBLE CARD 5804272 4272 FD056 AA FD090 BA FD053 CA FD050 DA DB FD053 FA FD060 GA GB FD021 HA HB JA JB FD050 KA FD090 LA FD050 PA FD020 PB FD021 RA UNUSED PORTIONS E	K4 DOUBLE CARD 5804268 4268 FD030 A1 A2 A3 AA AB AC AD AE AF AG AH AJ AK AL AM AN AP AR AS AT AU AV AW AX AY AZ FD050 CA FD097 DA	N4 CONNECTOR B02 FD050BH4 B03 FD025CD4 B04 FD053BC4 B05 FD053AS4 B07 FD053BX4 B12 FD090AY4 B13 FD056AV4 D05 FD097AM4 D06 FD097AL4
D6	DOUBLE CARD 5804271 4271 FD098 A1 A2 K1 UNUSED PORTIONS B C D E F G H J L	G6 DOUBLE CARD 5804271 4271 FD050 A1 A2 B1 FD070 C1 FD053 D1 FD026 E1 F1 FD025 G1 FD097 H1 J1 FD050 K1 K2 FD090 L1 M1 UNUSED PORTIONS P	K6 DOUBLE CARD 5804270 4270 FD026 AA AB AC AD AE AF AG AH AK AM AN AP AQ BA BB BC BD BE BF BG BH BJ BK BL BN BO FD020 DA DB DC DE FA HA JA KA RA UNUSED PORTIONS C L	N5 CONNECTOR B02 FD026AN4 B03 FD026AR4 B04 FD026AC4 B05 FD026BA4 B07 FD057AQ4 B08 FD025BR4 B09 FD021H4 B10 FD025R24 B11 FD053BV4 B12 FD026AV4 D02 FD026BD4 D04 FD026AL4 D05 FD026AK4 D06 FD026BA4 D07 FD070R24 D11 FD090BD4 D12 FD020AL4 D13 FD070BR4
E4	SINGLE CARD 5800000 0000 FD053 A1 B1 FD097 C1 D1 FD021 E1 FD025 F1	H1 CONNECTOR C11 FD057AP4	L4 DOUBLE CARD 5806264 6264 FD056 A1 A2 B1 C1 C2 D1 E1 E2 E3 F1 G1 H1 H2 J1 UNUSED PORTIONS K L	N6 CONNECTOR B02 FD020AR4 B03 FD020AR4 B04 FD020AS4 B05 FD020AT4 B07 FD021AU4 B08 FD021AV4 B09 FD021BU4 B10 FD021BR4 B12 FD021R24 B13 FD021AR4 D02 FD025CH4 D05 FD025BB4 D06 FD025AL4 D07 FD025AK4 D09 FD025BD4 D10 FD025AR4 D11 FD025BC4 D12 FD020AU4 D13 FD021AY4
E6	DOUBLE CARD 5804271 4271 FD050 A1 A2 B1 FD070 C1 FD053 D1 E1 FD050 F1 FD026 G1 FD090 H1 FD053 J1 FD050 K1 K2 FD053 L1 M1 UNUSED PORTIONS P	H4 DOUBLE CARD 5807526 7526 FD057 AA AB AC BA BB BC BD BF BG BH BJ BK BL BN BO UNUSED PORTIONS C D E	L6 DOUBLE CARD 5804270 4270 FD025 AA AB AC AD AE AF AG AH AK AM AN AP AQ BA BB BC BD BE BF BG BH BJ BK BL BN BO FD021 DA DB DC DE FA HA JA KA LA RA CONNECTOR A06 FD070AC7 B04 FD056AB6 B06 FD056AL4 C04 FD056BB4 C06 FD020AK4 D04 FD020AG4 E04 FD070AL4 E06 FD090BD4	N7 CONNECTOR B02 FD097AP4 B03 FD050AU4 B04 FD050BA4 B05 FD056AL4 B07 FD050AV4 B08 FD050AV4 B09 FD050AZ4 B10 FD050AU4 B12 FD050AT4 B13 FD050AX4 D02 FD090BC4 D04 FD090BE4 D07 FD053BU4
F4	DOUBLE CARD 5800763 0763 FD053 AA AB AC AD AE AF AG AH AJ AK AL AP AS AT AU BA UNUSED PORTIONS C D E F	H5 DOUBLE CARD 5804271 4271 FD050 A1 A2 B1 FD090 C1 FD097 D1 FD053 E1 FD050 F1 FD026 G1 FD021 H1 FD050 J1 K1 K2 L1 FD097 M1 UNUSED PORTIONS P	L7 DOUBLE CARD 5804298 4298 FD085 AA AC CONNECTOR A06 FD090AR4 B04 FD070AK4 B06 FD090AB3 C04 FD090AR5 C06 FD090AB6 D04 FD020AH4	
F6	DOUBLE CARD 5804271 4271 FD050 A1 A2 B1 C1 FD097 D1 FD025 E1 FD053 F1 FD025 G1 FD053 H1 FD050 J1 K1 K2 FD053 L1 M1 UNUSED PORTIONS P	J1 CONNECTOR E11 FD065AC3	N2 CONNECTOR B02 FD065AB2 B03 FD065AG2 B04 FD065AR2 B05 FD065AB2 B08 FD060AP2 B10 FD060AP6 B13 FD065AC2 D02 FD065AK2 D04 FD065AP2	
F7	DOUBLE CARD 5804271 4271 FD050 A1 A2 B1 C1 FD097 D1 FD025 E1 FD053 F1 FD025 G1 FD053 H1 FD050 J1 K1 K2 FD053 L1 M1 UNUSED PORTIONS P	J2 DOUBLE CARD 5804275 4275 FD065 A1 A2 A3 A4 A5 A6 A7 AB A9 AB AC UNUSED PORTIONS B C D		
		J4 DOUBLE CARD 5804269 4269 FD040 01 02 03 04 05 06 07 08 09 10 11 12 13 14 15 16 17 18		

PLUG LIST				
PART NO	ACC	TYPE	SOCKETS	TOTAL
5800000	0000	E4		01
5800763	0763	F4		01
5804268	4268	K4		01
5804269	4269	J4		01
5804270	4270	K6 L6		02
5804271	4271	E6 F6 G6 H6		04
5804271	4271	D6		01
5804272	4272	G6		01
5804273	4273	G2		01
5804275	4275	J2		01
5804298	4298	R2		01
5806264	6264	L4		01
5806363	6363	K2		01
5807526	7526	H4		01
5808363	8363	C4		01
CONV				14
A2 A3 G1 H1				
J1 K8 L8 M8				
N2 N3 N4 N5				
N6 N7				

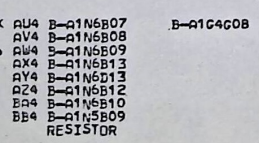
SOCKET LISTING		
DATE	05-23-68	PAGE 2311
LOC	147D	BOARD 01B-A1
PREV	ENGR	02-14-68 411341
PREV	ENGR	05-25-68 411359
PREV	2180331	
IBM CORP.	SDD	BLK

FD016



8-14-64 EC 411042
 EC 411105
 EC 411127
 EC 411131
 7-9-65 EC 411143

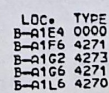
DATA FLOW AND CONTROL
 DATE 8-14-64 MACH 2311
 LOG P/N 2180832
 ION CORP



LDC.	TYPE
B-A1E4	0000
B-A1G4	4272
B-A1H6	4271
B-A1L6	4270

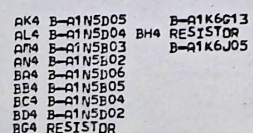
LINE RECEIVERS

—E.C.—HISTORY		FRACH.2311	
411062A	411189		
411066	411205	FRAME	01
411079	411227		
411131	411249	IBM CORP. GPD	
DATE	LAST EC		
09-15-67	411334	P.No 2180634	



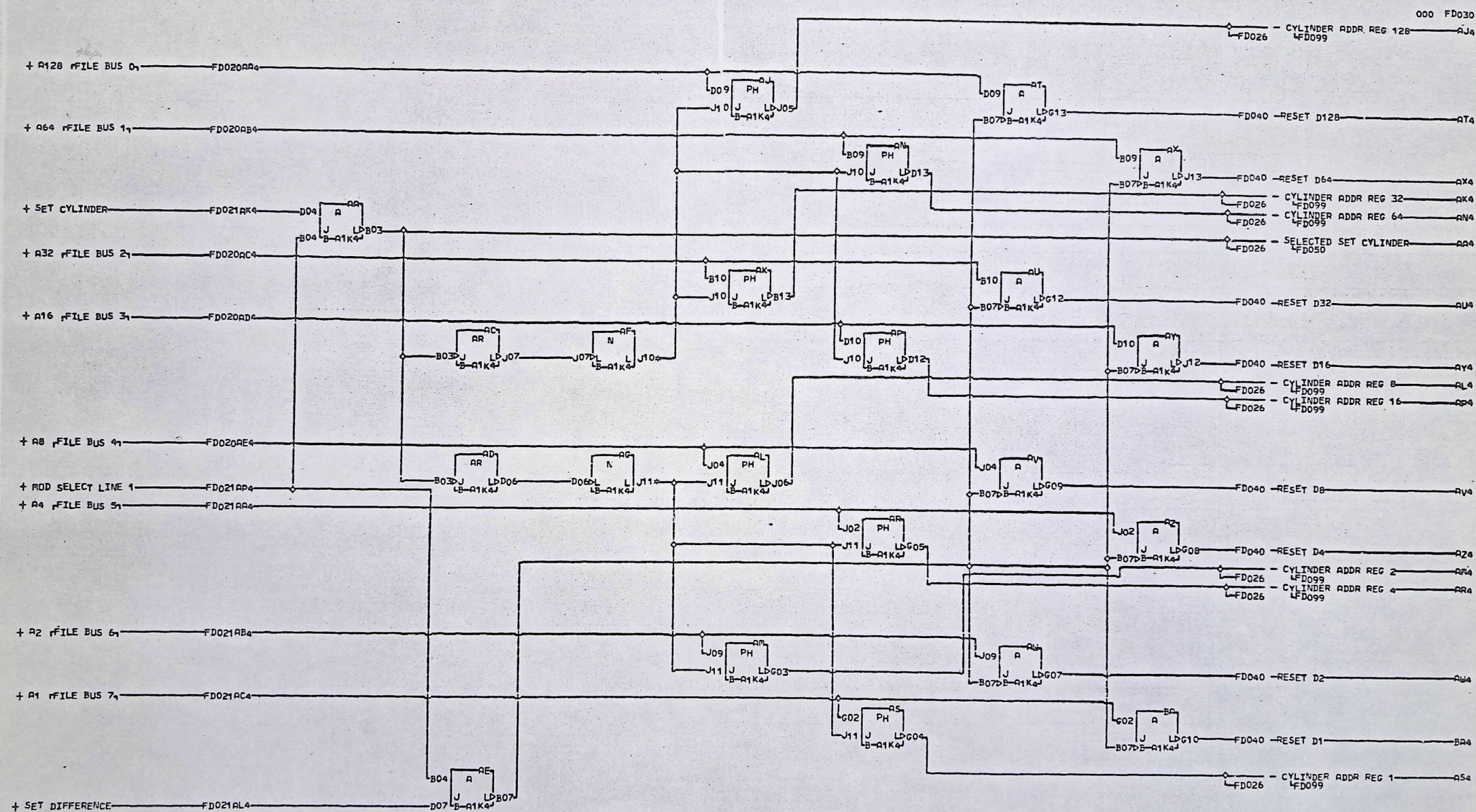
LINE DRIVERS

E.C. - HISTORY		FRACH.2311
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411105	411205	FRAME 01
411127	411231	
411131	411249	IBM CORP. GPD
DATE	LAST EC	
09-15-67	411334	P.No 2180635



LOC.	TYPE
B-Q1E6	4271
B-Q1G6	4271
B-Q1H6	4271
B-Q1K6	4270

LINE DRIVERS		
-E.C.-HISTORY		MACH.2311
411042A	411227	
411079	411249	FRAME 01
411105		
411189		IBM CORP. GPD
DATE	LAST EC	
09-15-67	411334	P.No 2180636

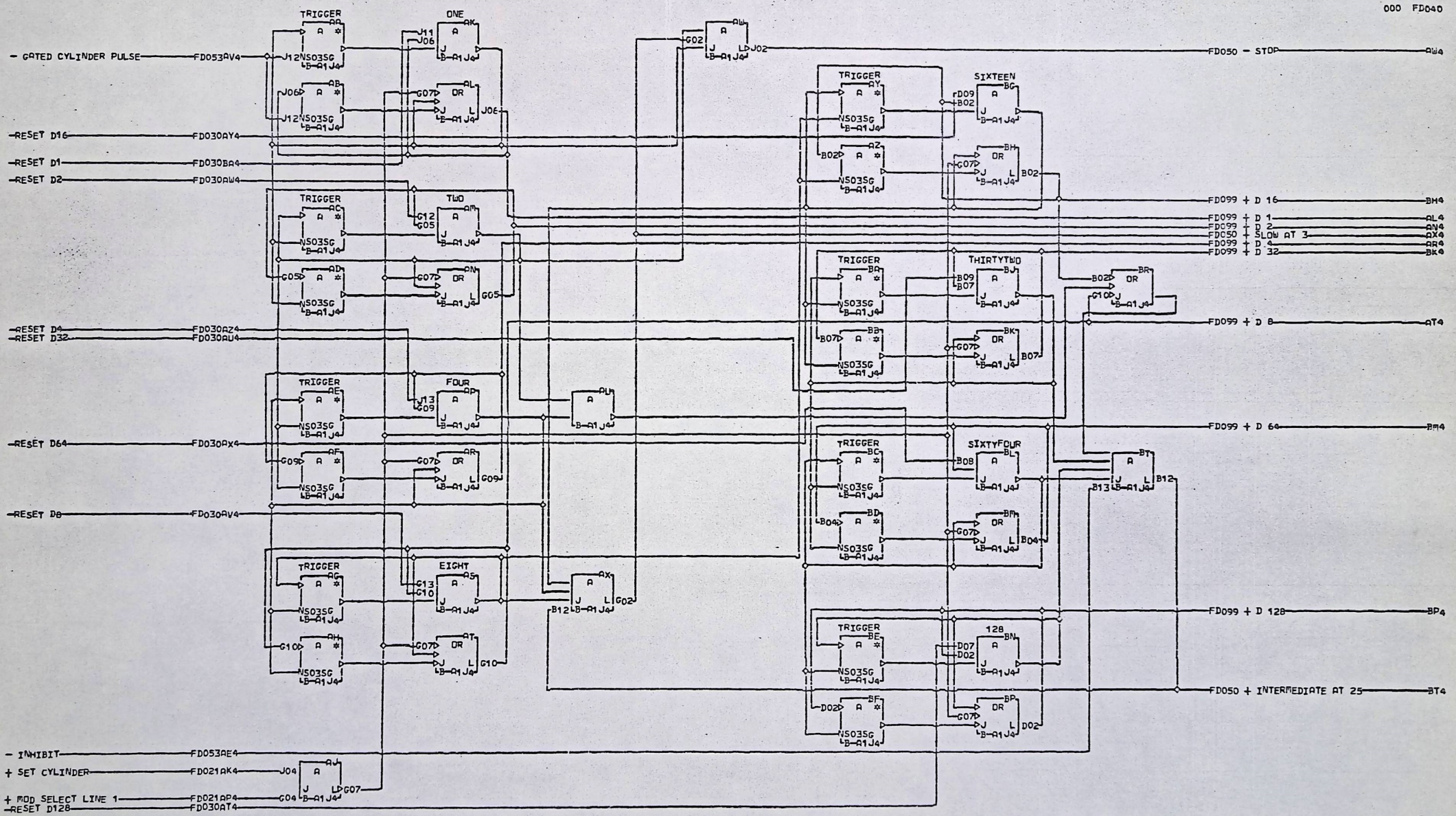


AF4 RESISTOR
B-A1K4J10
AG4 RESISTOR
B-A1K4J11

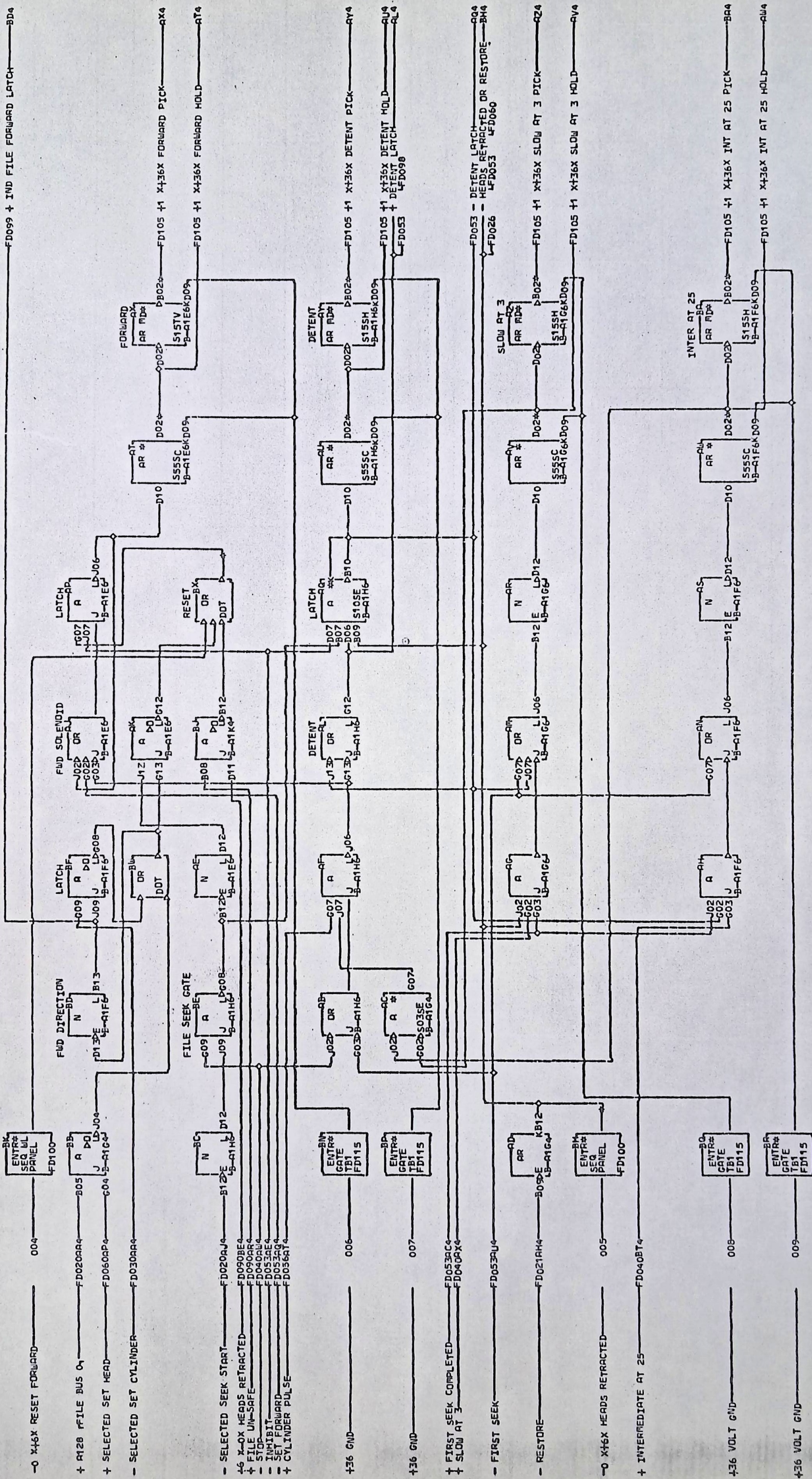
LDC TYPE
B-A1K4 4268

CYL ADDR REG + DIFF RESET				F D O 3 0
EC-HISTORY	FRAM	DATE	LAST EC	
411042A	411131	11-15-66	411249	000
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411079				
411105				
411124				

000


 LOC. TYPE
 B-A1J4 4269

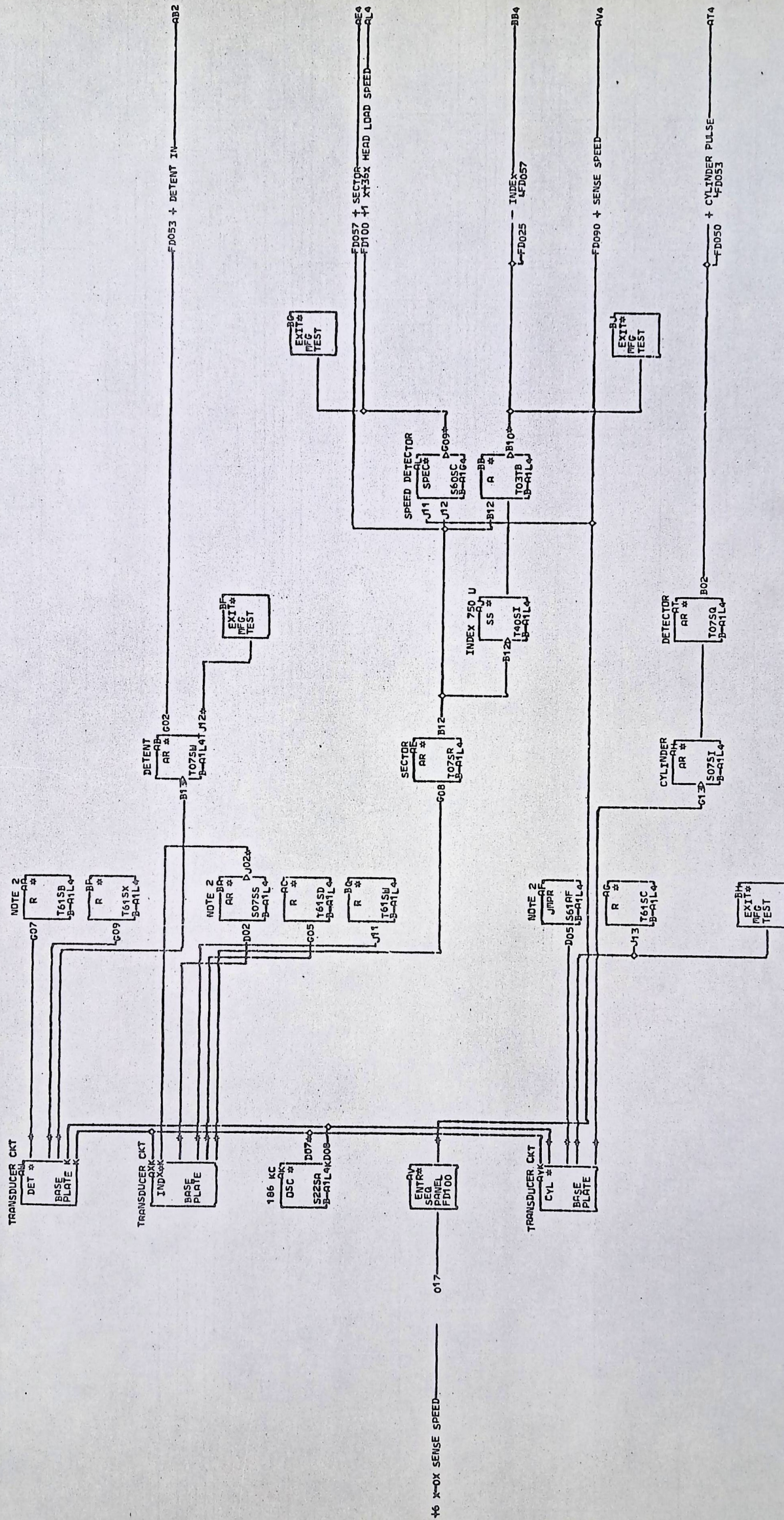
DIFFERENCE COUNTER WITH		A
DECODES		
-E-C-HISTORY	RACH#2311	F
411042A	FRAME	D
411056		O
411079		A
411105	IBM CORP. GPD	O
DATE	LAST EC	
11-13-66	411249	000
	P#N# 2160638	



LOC. TYPE
B-41E6 4271
B-41F6 4271
B-41G6 4271
B-41H6 4271
B-41K6 4268

AT4 B-41N7B12 BX4 B-41N4B07
AU4 B-41N7B03
AV4 B-41N7B08
AX4 B-41N7B10
AY4 B-41N7B13
AZ4 B-41N7B07
BA4 B-41N7B09
BH4 B-41N7B04

SOLENOID DRIVERS			
E.C. HISTORY	PACH. 2311		
41102A	411131	FRAME	01
411066	411189		
411079	411249		
411105	DATE	LAST EC	000
09-15-67	411334	P.N.	2180639

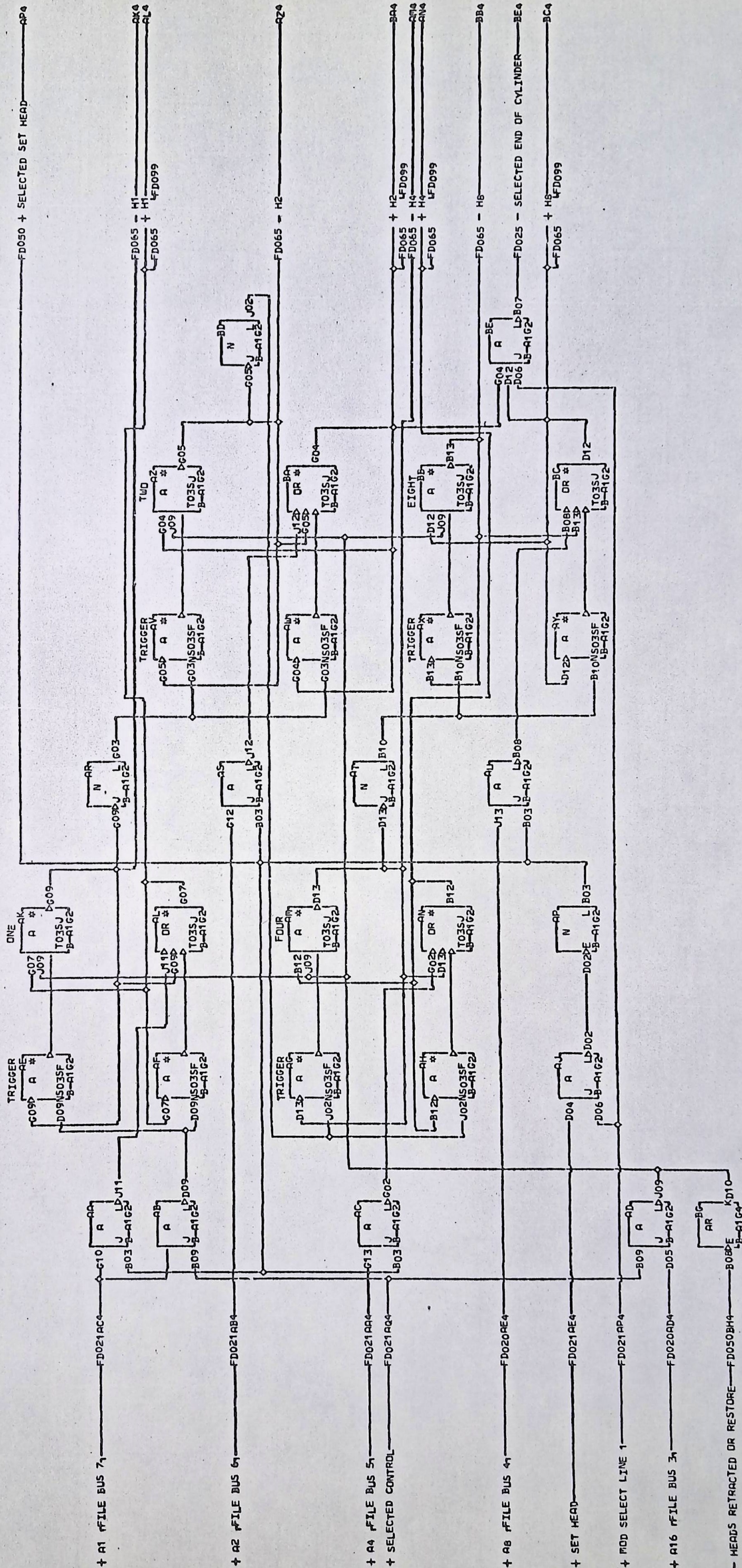


NOTE: WARNING DO NOT GROUND
OUTPUTS B02 B12 OR G02

[illegible]

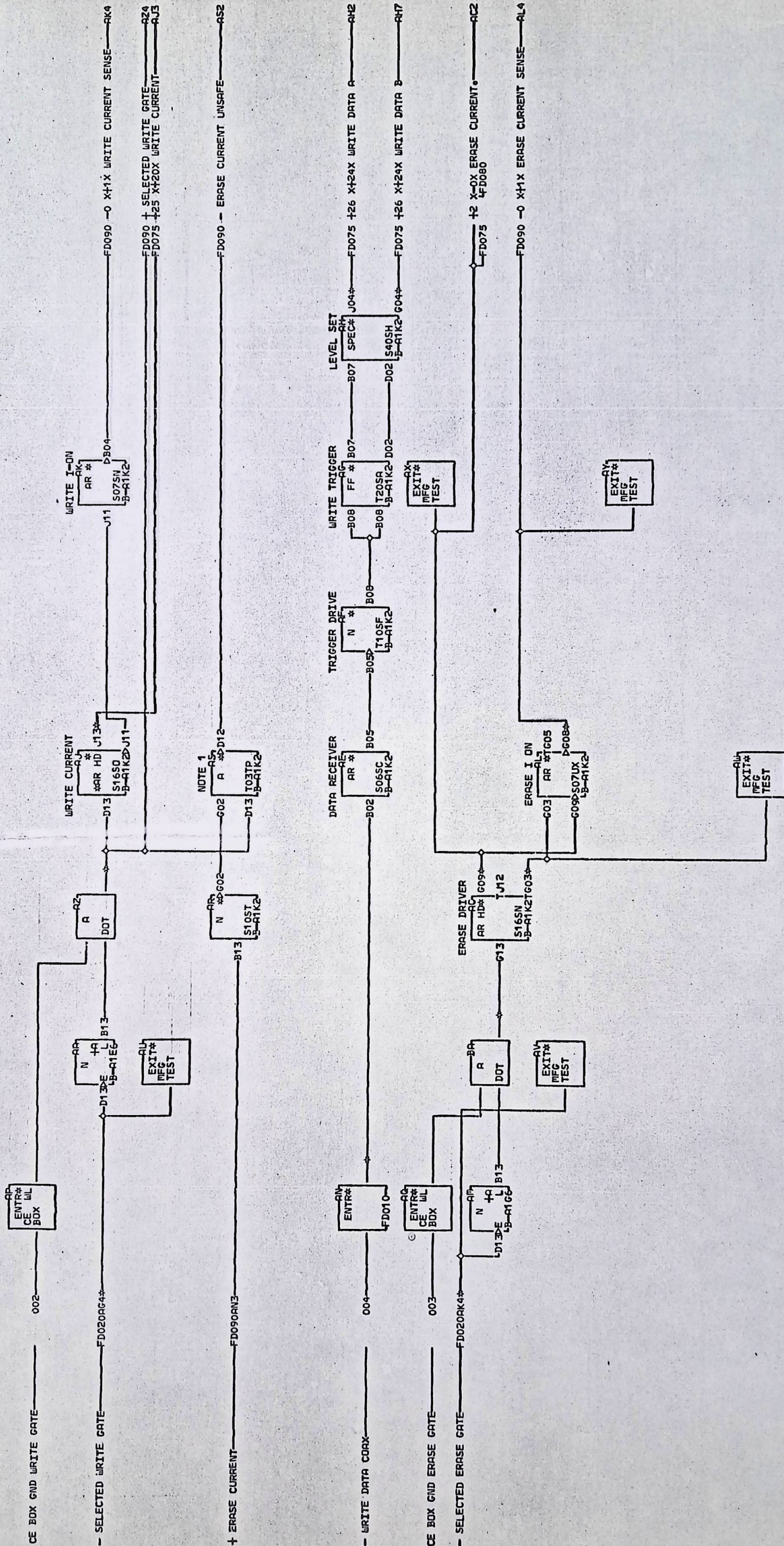
LUC.	TYPE
B-21G	4272
B-21L	6264

TRANSDUCER	01	IBM CORP.	CPD
CIRCUIT	FRAME	2180641	
AND			
SPEED DETECTOR			
—E-C-HISTORY			
411105	411624		
411127	411205		
411131	411227		
411153	411249		
DATE	LAST EC		
09-15-67	411334		



LOC. TYPE
B-A1G2 4273
B-A1G4 4272

HEAD ADDRESS REG.			
EC-HISTORY	411042A	MACH-2311	F
411066	411189	FRAME	D
411079	01	IBP CORP. GPD	6
411105	DATE	LAST EC	0
11-15-66	411249	P.N. 2180642	000

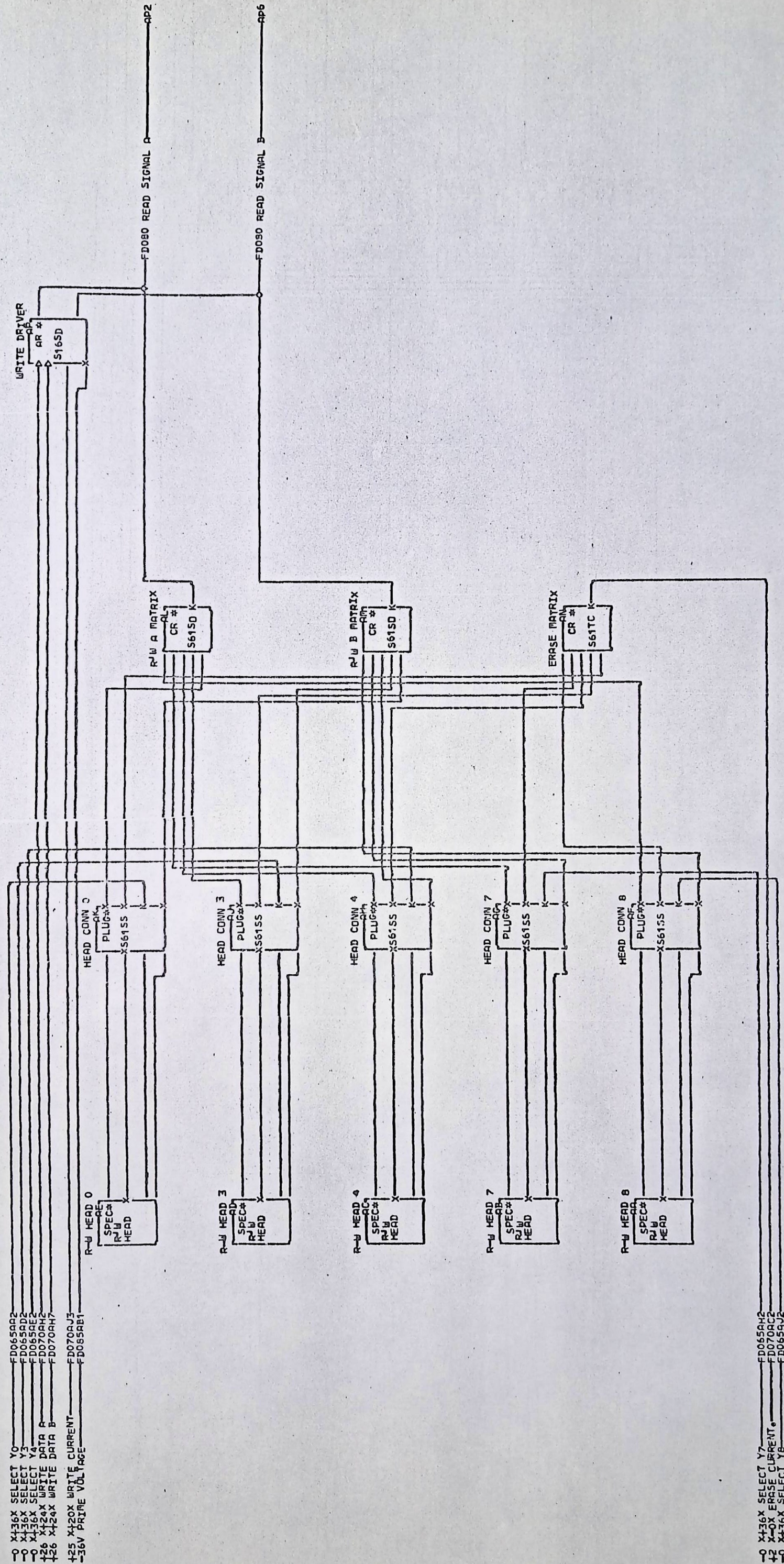


LUC TYPE
B-41E6 4271
B-41G6 4271
B-41K2 6838

FD020AC4
01B-41L8D04
FD020AK4
01B-41L8C06
AC2 B-41N2D05
01B-41K8E04
AC7 B-41L8A06
AH2 B-41N2D07
AH7 B-41N2D09

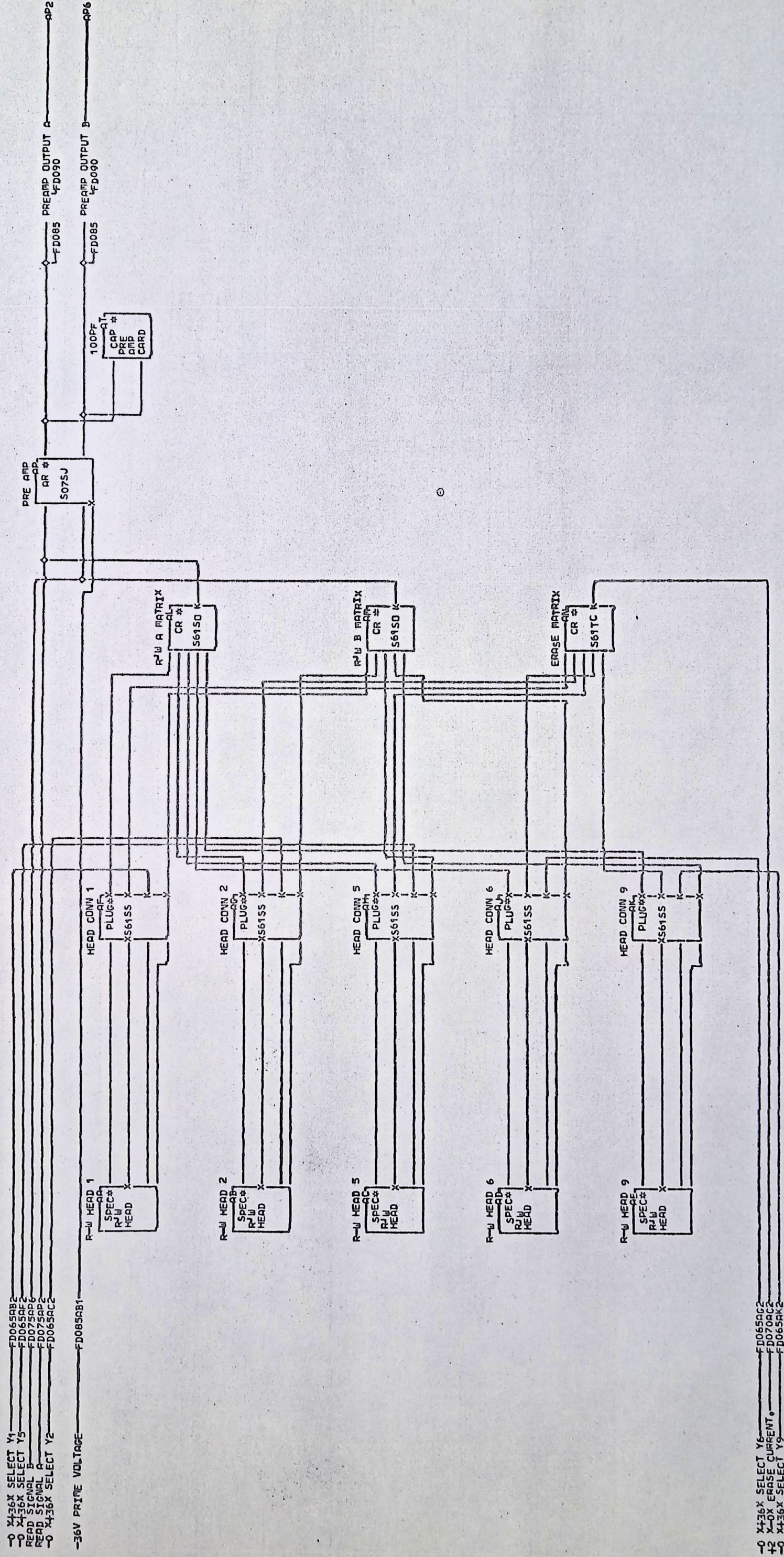
F NOTE 1 USE EITHER
D CARD 6838 OR
0 6231

WRITE AMPLIFIER	
E.C. HISTORY	MACH. 2311
411042A	411189
411105	411249
411127	411334
411152	411334
DATE	LAST EC
02-14-68	411341
P.N.	2180644



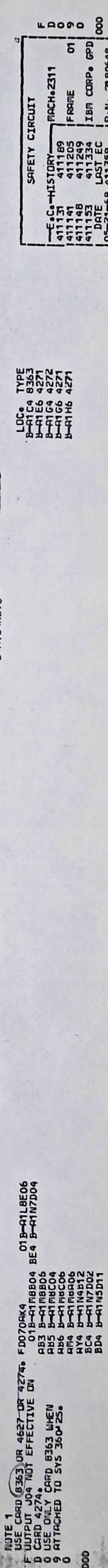
NOTE 1 HEADS 0 3 4 7 AND 8
LOCATED ON B SIDE OF ACTUATOR
TOWARD FRONT OF MACHINE.

WRITE DRIVER AND MATRIX			
F.C. HISTORY	MACH. 2311	DATE	LAST EC
411092A	FRAME	11-15-66	411249
411105			
411227			
	IBM CORP. GPD		
	P.N. 2180645		

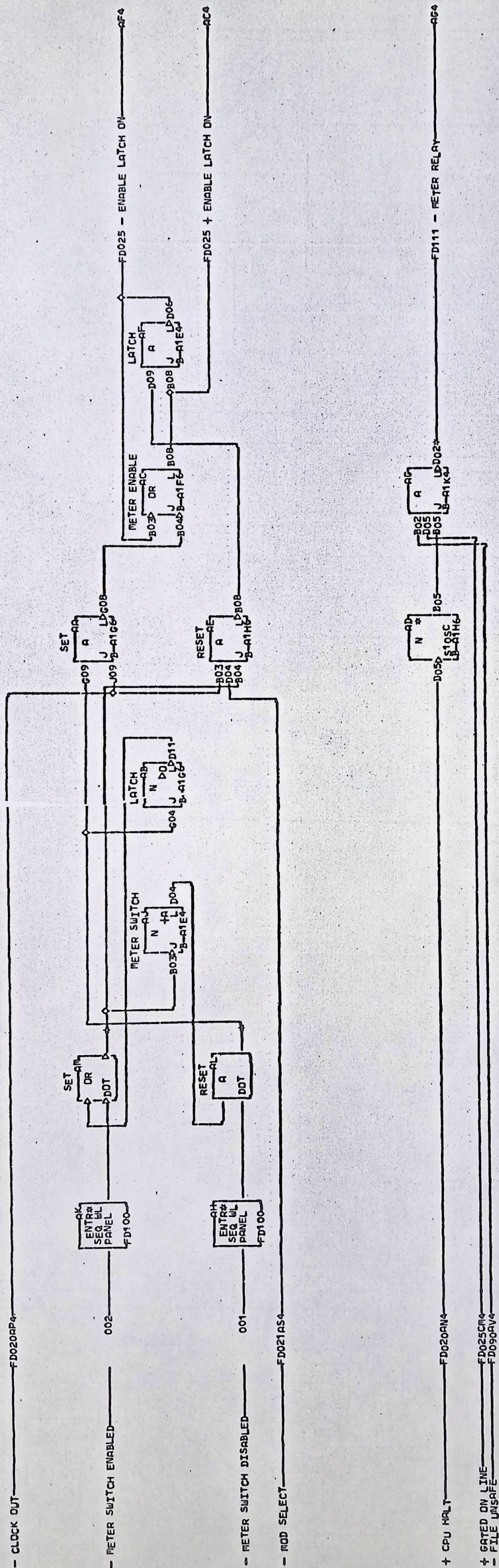


NOTE 1 HEADS 1 2 5 6 AND 9
LOCATED ON A SIDE OF ACTUATOR
TOWARD REAR OF MACHINE.

READ PRE-AMP AND MATRIX			
FILE HISTORY	411042A	411227	411265
FRAME	01		
DATE	41105		
LAST EC	411249		
P.O. No.	2180545		



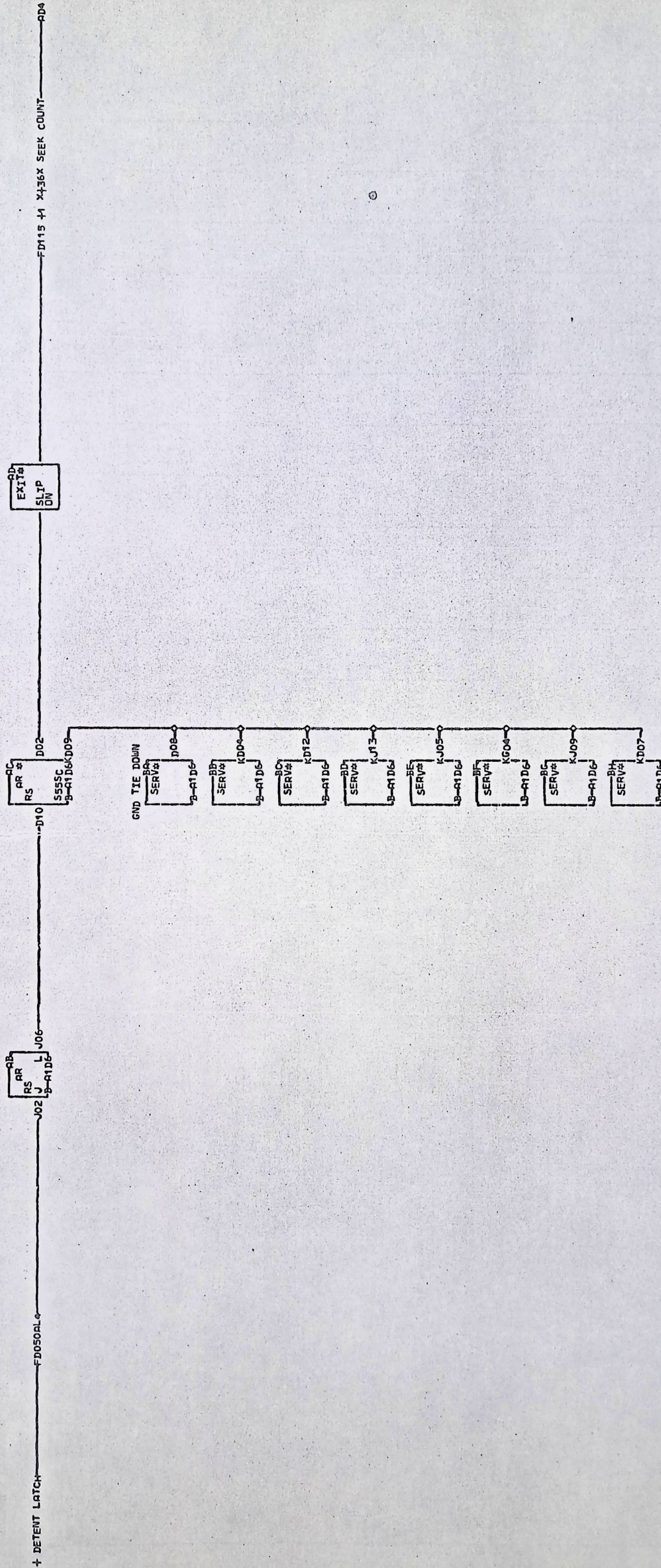
000



LOC. TYPE
B-01E4 0005
B-01F6 4271
B-01G6 4271
B-01H6 4271
B-01K4 4268

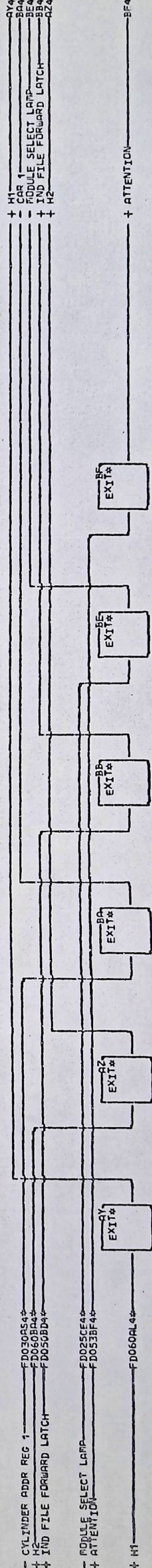
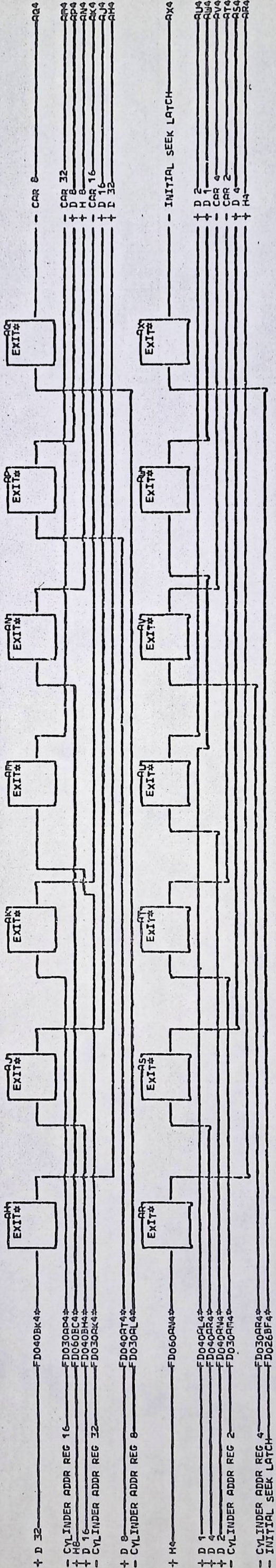
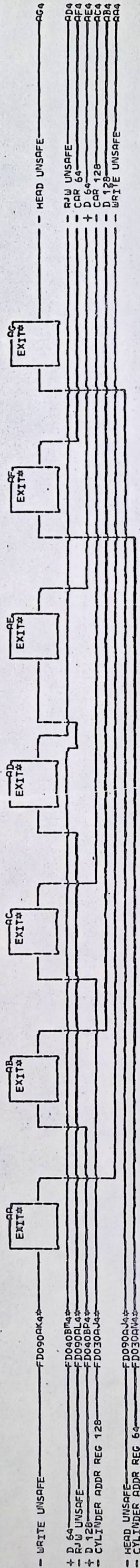
REVENUE METER	
E-C-HISTORY	RACH-2311
41131	41189
41131A	411205
41131B	411231
41143	411249
41148	LAST EC
DATE	09-15-67 411334
P.N.	2180655

AG4 B-01N7802
AL4 B-01M4006
AM4 B-01M4005



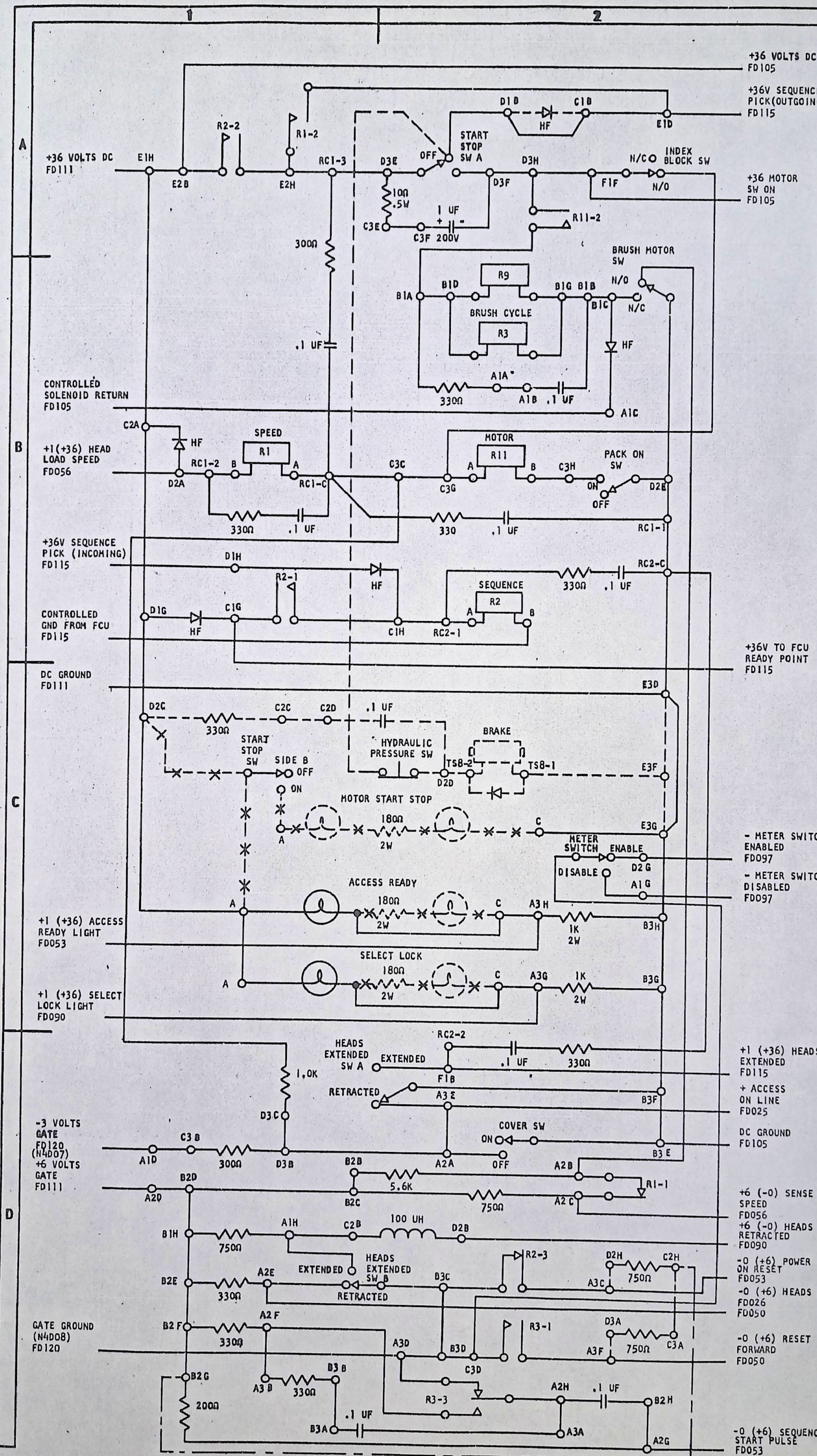
LOC. TYPE
B-A1D6 4271

R + S METER		F D 0 8	
OPTIONAL FEATURE		RACH#2311	
E.C. HISTORY		FRAME 01	
411062A		IBN CORP. CPD	
411068		P#N# 2130833	
411105		LAST EC	
411249		DATE	
09-15-67		411334	



C.E. INDICATOR DRIVER	
F 0 9 9	D 0 1
MACH. 2311	
FRATE 01	
IBM CORP. GPD	
DATE LAST EC	
11-15-66 411249	
P.N. 2180825	

FD025CE4 01B-A1A2D05 FD030A54 01B-A1A2B04 FD050BD4 01B-A1A2D04
01B-A1A2D11 FD030A54 01B-A1A2D10 FD040B44 01B-A1A2D11 FD060BC4
FD025BF4 01B-A1A2D09 FD040A14 01B-A1A2D09 FD050BF4 01B-A1A2B07
01B-A1A2B10 FD030A54 01B-A1A2B09 FD040B44 01B-A1A2B12 FD090BJ4
FD030A54 01B-A1A2B07 FD040A14 01B-A1A2D12 FD050AL4 01B-A1A2B09
01B-A1A2B13 FD030A54 01B-A1A2D05 FD040A14 01B-A1A2D07 FD090AK4
FD030A54 01B-A1A2D13 FD040A14 01B-A1A2D06 FD050AN4 01B-A1A2D02
01B-A1A2B10 FD030A54 01B-A1A2D02 FD040A14 01B-A1A2B02 FD090AL4
FD030AL4 01B-A1A2B04 FD040A14 01B-A1A2B02 FD060BA4 01B-A1A2D04

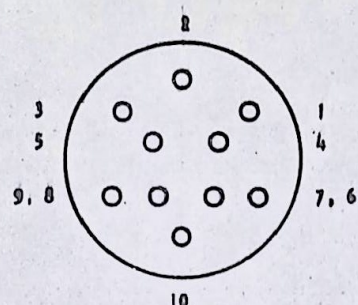


POWER ON/OFF SEQUENCING				DATE		P/N		TYPE	FD100
DATE	EC NUMBER	DATE	EC NUMBER	DATE	DATE	DATE	DATE		
MAY 66	411205	MAY 67	411279	MAY 67	2180649				
NOV 66	411210E	06 JUN 66	411359						
MAR 67	411210J								
APR 67	411249								

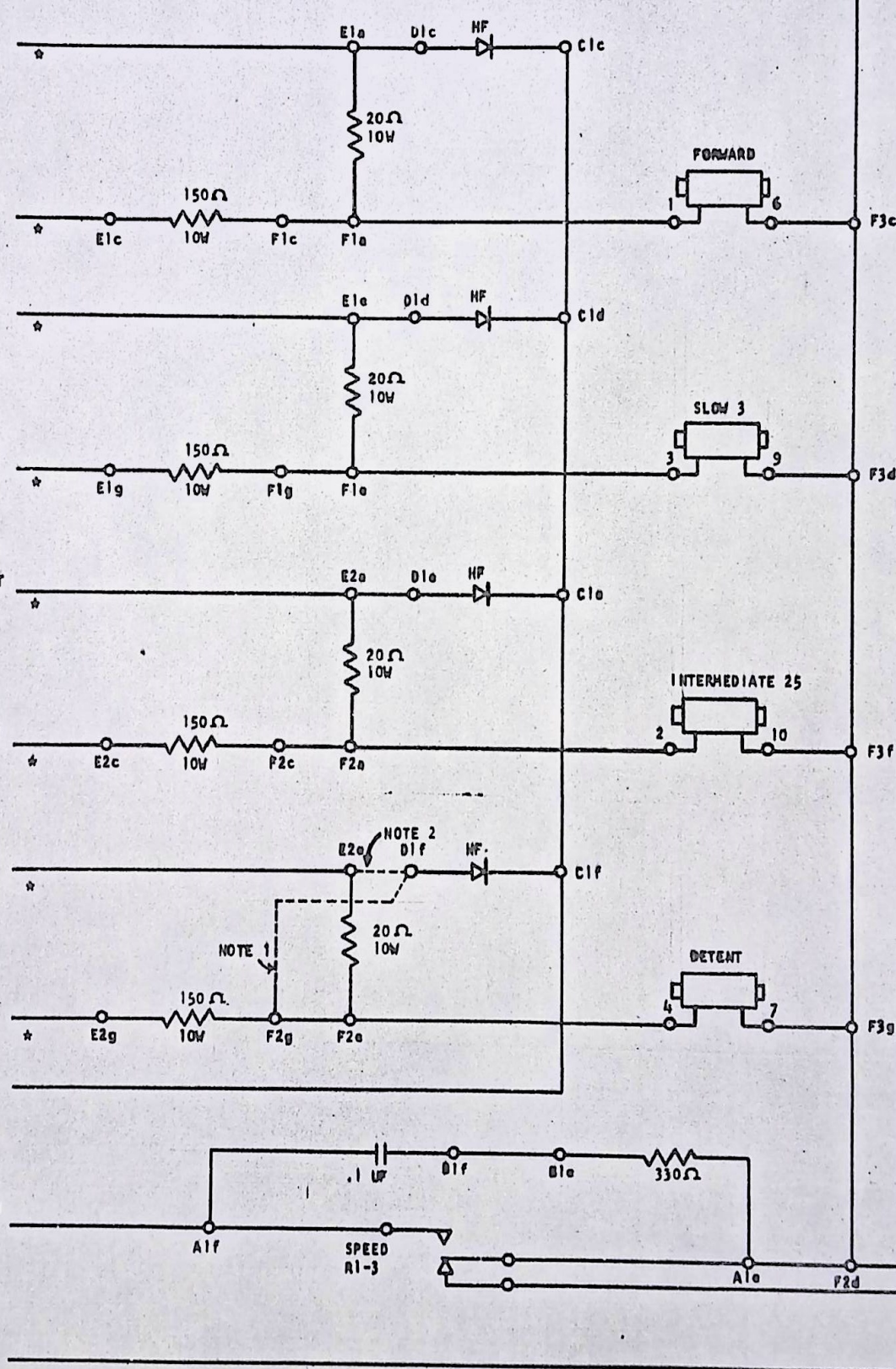
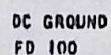
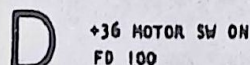
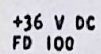
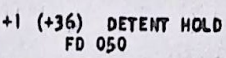
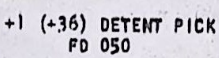
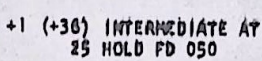
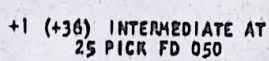
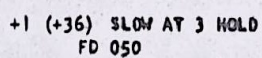
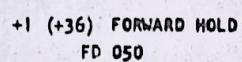
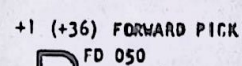
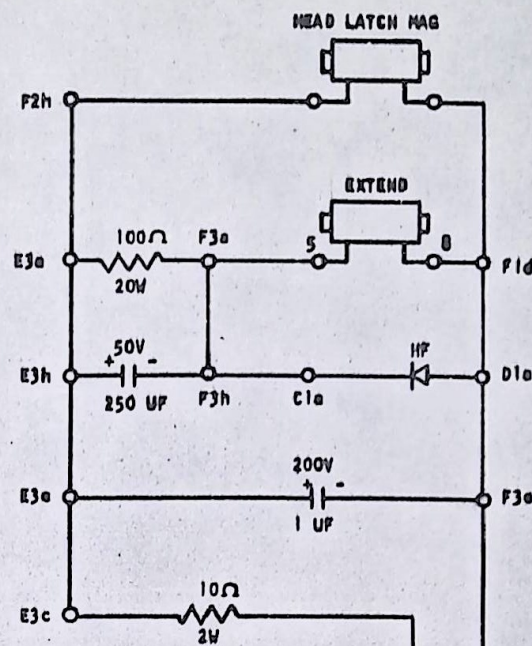
RED

INDICATE CIRCUITRY FOR MACHINES WITH ELECTRICAL SPINDLE BRAKE.
INDICATE CIRCUITRY FOR MACHINES WITH PUSHBUTTON START/STOP SWITCH.
INDICATES CIRCUITRY PRESENT ON LATE MODEL MACHINES ONLY.

- METER SWITCH ENABLED FD097
- METER SWITCH DISABLED FD097
- +1 (+36) HEADS EXTENDED FD115
- + ACCESS ON LINE FD025
- DC GROUND FD105
- +6 (-0) SENSE SPEED FD056
- +6 (-0) HEADS RETRACTED FD090
- 0 (+6) POWER ON RESET FD053
- 0 (+6) HEADS RETRACTED FD026 FD050
- 0 (+6) RESET FORWARD FD050
- 0 (+6) SEQUENCE START PULSE FD053



SOLENOID	PINS
FORWARD	1-6
SLOW AT 3	3-9
SLOW AT 25	2-10
DETENT	4-7
EXTEND	5-8



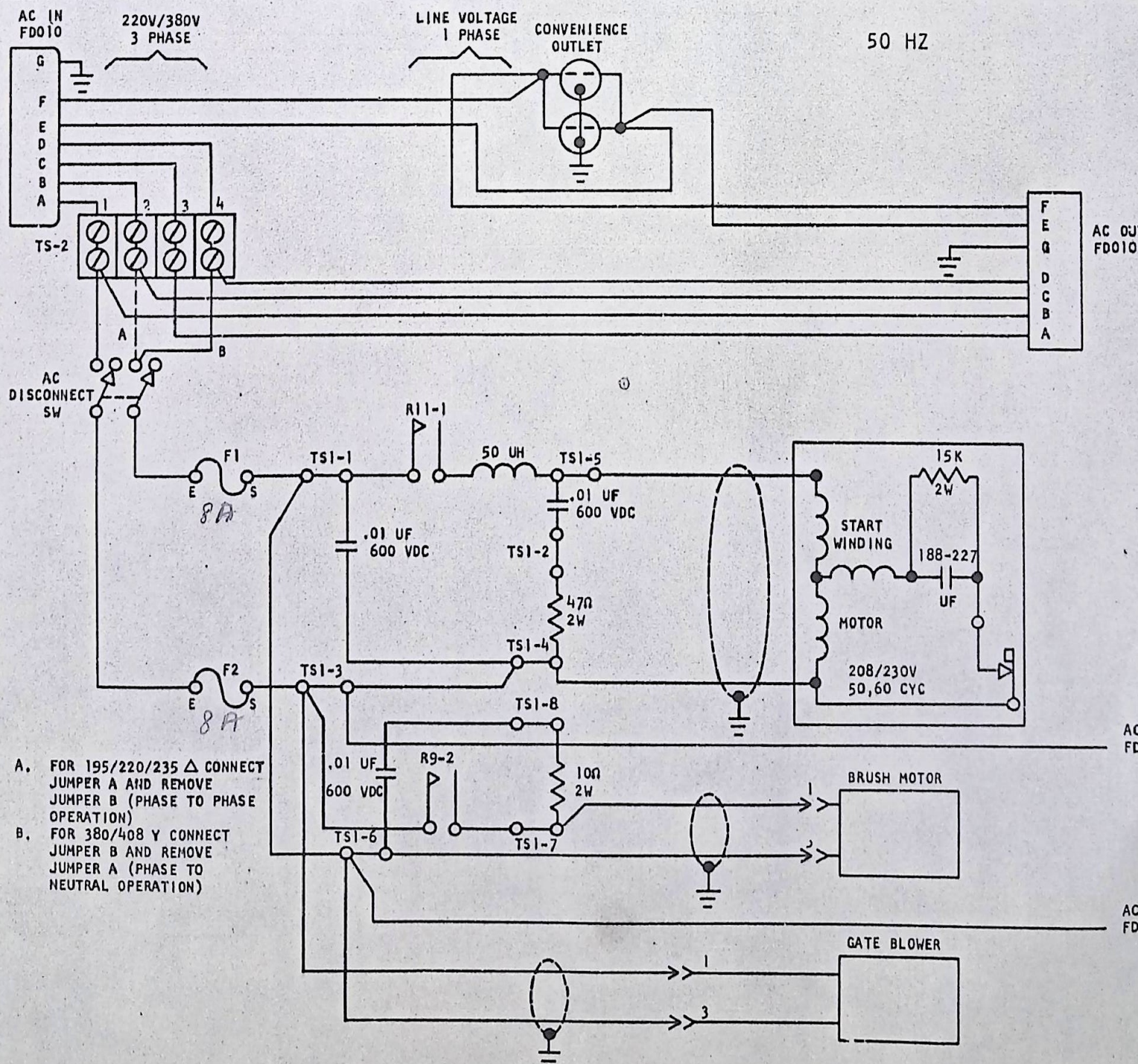
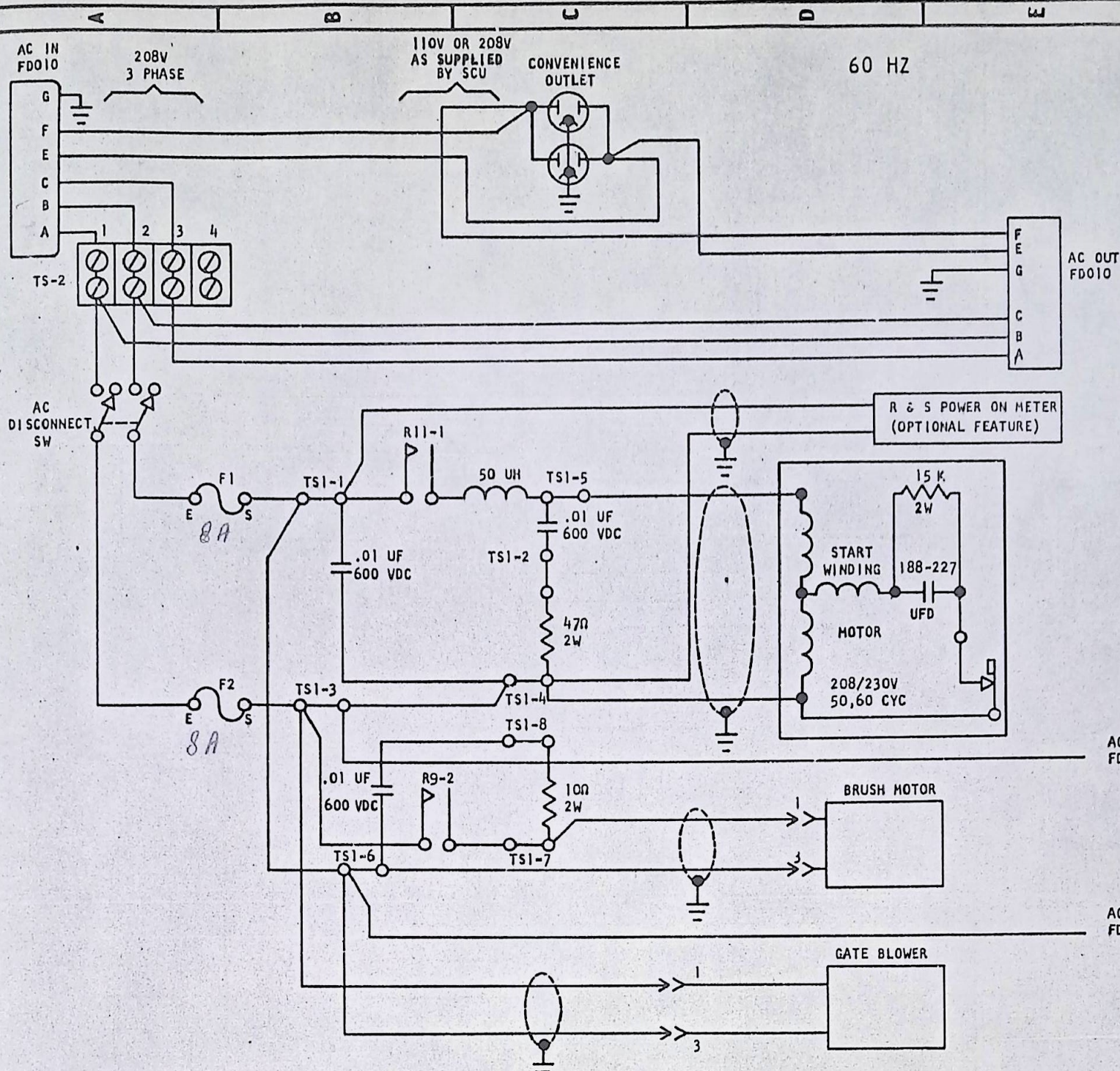
* TWISTED PAIR - GROUNDED WIRE CONNECTED ONLY AT GATE END ON CONNECTOR GROUND STRIP.

NOTE 1. JUMPER IS CONNECTED IN THIS LOCATION FOR FILES WITH ACTUATORS HAVING VALVE BLOCKS WITHOUT P/N INDICATION.

NOTE 2. JUMPER IS CONNECTED IN THIS LOCATION FOR FILES WITH ACTUATORS HAVING VALVE BLOCKS WITH P/N INDICATION (HIGH SPEED ACTUATORS).

EC 411131 MAY 65
EC 411141 JUN 65
EC 411162A NOV 65
EC 411184 MAR 66
EC 411249 APR 67

7
6
5
4
3
2



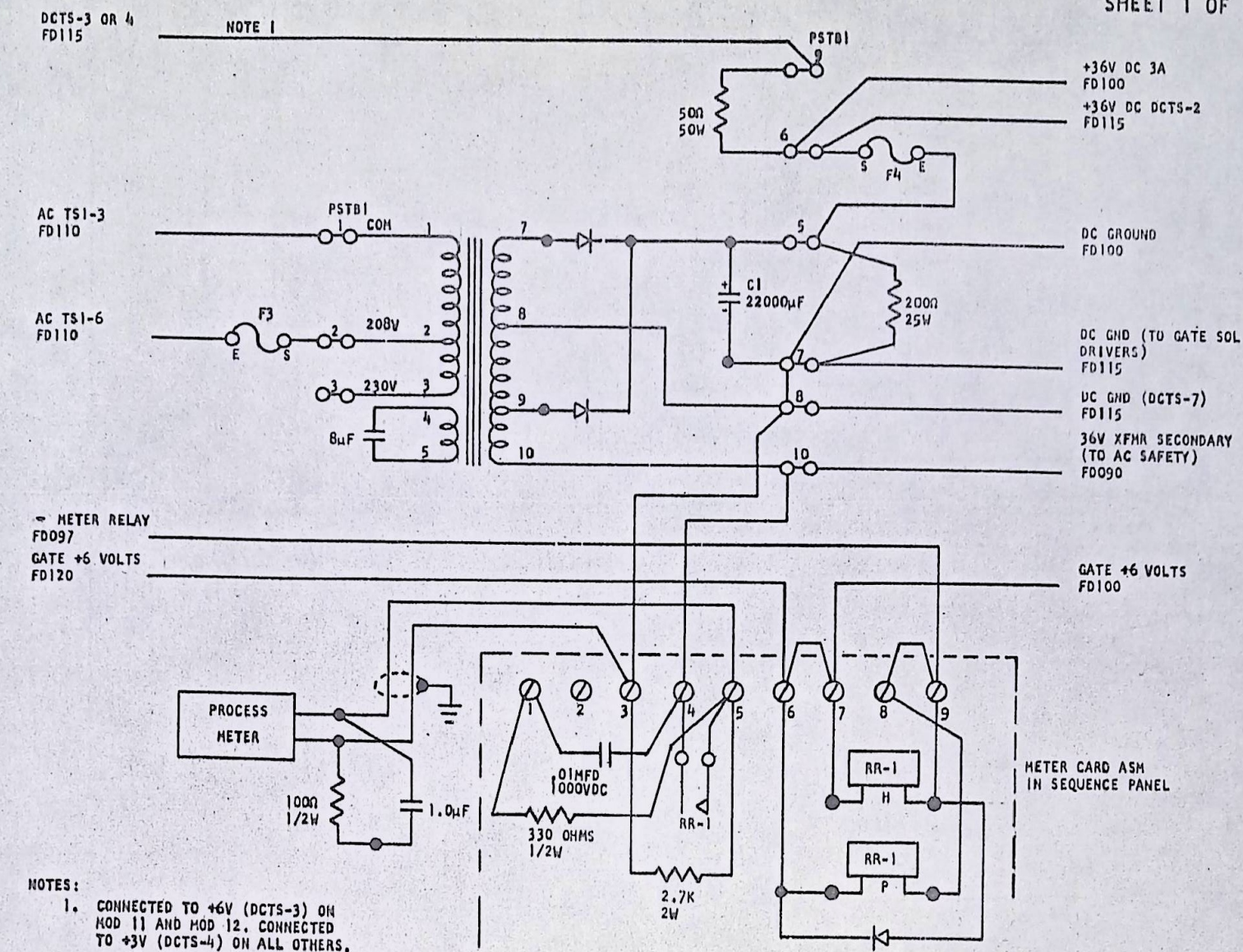
- A. FOR 195/220/235 Δ CONNECT JUMPER A AND REMOVE JUMPER B (PHASE TO PHASE OPERATION)
- B. FOR 380/408 Y CONNECT JUMPER B AND REMOVE JUMPER A (PHASE TO NEUTRAL OPERATION)

AC POWER DISTRIBUTION 60 HZ		AND 50 HZ		DATE		P/N		TYPE		FD110	
DATE	EC NUMBER	DATE	EC NUMBER	DATE	EC NUMBER	DATE	EC NUMBER	DATE	EC NUMBER	DATE	EC NUMBER
NOV66	411210C	NOV66	411210C	MAR 67	2180651						
NOV66	411210E	NOV66	411210E								
MAR67	411210J	MAR67	411210J								
06JUN68	411359	06JUN68	411359								

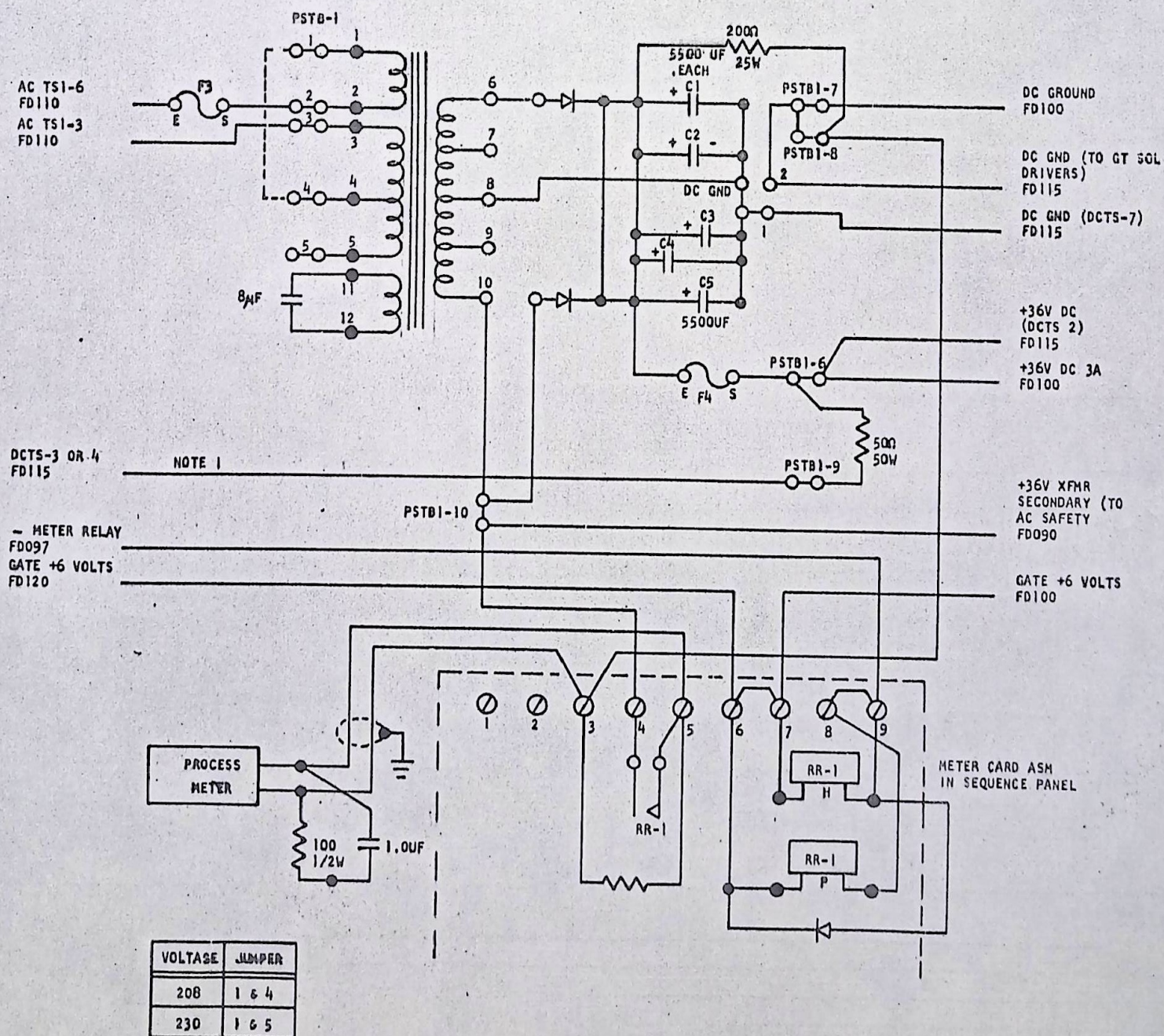
RED

AC POWER DISTRIBUTION 60 CPS
LATE MODELS (SINGLE CAPACITOR +36V POWER SUPPLY)

SHEET 1 OF 2



AC POWER DISTRIBUTION 60 CPS
EARLY MODELS (5 CAPACITOR +36V POWER SUPPLY)



NOTES:

1. CONNECTED TO +6V (DCTS-3) ON MOD 11 AND MOD 12. CONNECTED TO +3V (DCTS-4) ON ALL OTHERS.

EC 411131 MAY 65
EC 411141 JUN 65
EC 411227 JUL 66
EC 411210C NOV 66
EC 411249 APR 67
EC 411292 APR 67
EC 411359 06JUN68

2

3

4

5

6

7

A

B

C

D

E

EDGE CONNECTOR LOCATION						
	A	B	C	D	E	F
1A	100-B2	100-B2	105-B2	105-B2	105-B2	105-B2
B	100-B2	100-B2	100-A2	100-A2		100-D2
C	100-B2	100-B2	105-B2	105-B2	105-B1	105-B1
D	100-D1	100-B2	105-B2	105-B2	100-A2	105-A2
E	105-D2	105-D2	105-C2	105-C2	105-B2	105-C2
F	105-D1	105-D2	105-C2	105-C2		100-A2
G	100-C2	100-B2	100-B1	100-B1	105-C1	105-C1
H	100-D1	100-D1	100-B2	100-B1	100-A1	
2A	100-D2		100-B1	100-B1	105-C2	105-C2
B	100-D2	100-D1	100-D1	100-D1	100-A1	
C	100-D2	100-D1	100-C1	100-C1	105-C1	105-C1
D	100-D1	100-D1	100-C1	100-C2		105-D2
E	100-D1	100-D1		100-B2	105-C2	105-D2
F	100-D1	100-D1				
G	100-D2	100-D1	105-2D	100-C2	105-D1	105-D1
H	100-D2	100-D2	100-D2	100-D2	100-A1	105-A2
3A	100-D2	100-D1	100-D2	100-D2	105-A2	105-A2
B	100-D1	100-D1	100-D1	100-D1		
C	100-D2	100-D2	100-B2	100-D1	105-B2	105-B2
D	100-D2	100-D2			100-C2	105-C2
E	100-D2	100-D2	100-A2	100-A2	105-B2	105-B2
F	100-D2	100-D2	100-A2	100-A2	100-C2	105-C2
G	100-C2	100-C2	100-B2		100-C2	105-D2
H	100-C2	100-C2	100-B2	100-A2	105-B2	105-B2

NOTE: FD PRECEDES ALL PAGE NUMBERS

RELAY	NAME	COIL	CONTACT		
			1	2	3
1	SPEED	100-B1	100-D2	100-A1	105-D2
2	SEQUENCE	100-B2	100-B1	100-A1	100-D2
3	BRUSH CYCLE (36V)	100-B2	100-D2	-	100-D2
9	BRUSH CYCLE (208)	100-B2	-	110	-
11	MOTOR	100-B2	110	100-A2	-

SWITCH	PAGE NO.	
	SIDE A	SIDE B
BRUSH MOTOR	100-B2	-
COVER SW	100-D2	-
ENABLE-DISABLE	100-C2	-
HEADS EXTENDED	100-D2	100-D2
HYDRALLIC PRESSURE	100-C2	-
INDEX BLOCK	100-A2	-
PACK ON SW	100-B2	-
START-STOP	100-A2	100-C1

FUSE	RATING	CIRCUIT	PAGE NO.
F1	8.0A SLO-BLO	208 AC ALL	FD110
F2	8.0A SLO-BLO	208 AC ALL	FD110
F3	1.0 SLO-BLO	208 AC TRANS	FD111
F4	4.0A FAST-BLO	+36V SEC	FD111

R.C. NETS	PAGE NO.
RC1-1	100-B2
RC1-2	100-B1
RC1-3	100-A1
RC1-4	-
RC2-1	100-B2
RC2-2	100-D2
RC2-3	-
RC2-4	-

COMPONENT LOCATIONS

DATE

EC NUMBER

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EC NUMBER

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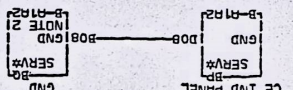
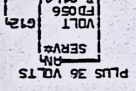
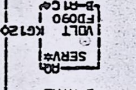
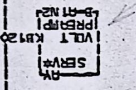
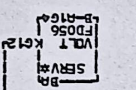
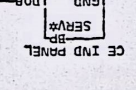
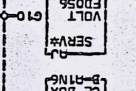
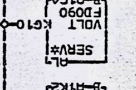
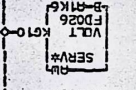
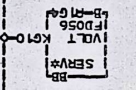
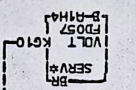
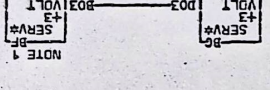
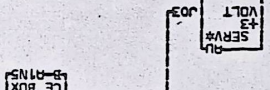
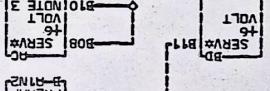
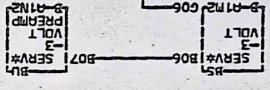
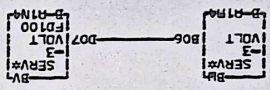
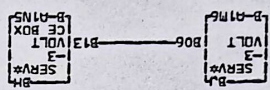
DATE

EC NUMBER

DATE

EC NUMBER

NOTE 1 NOTES INSIDE SERVICE
BLOCKS SHOW WHAT VOLTAGE IS
D CONNECTED TO
1 TO LOGIC PAGES
2 VOLTAGE SOURCES HAVE NO NOTES
0 NOTE 2 GOES TO CE INDICATOR
PAGE 3 GUES TO TRANSDUCERS
000000



SERVICE VOLTAGE BOARD A1
E-CALIBRATION
411042A 411227
411066 411227
411189 411359
DATE LAST EC
05-21-68 411359
P.N. 2180654
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